

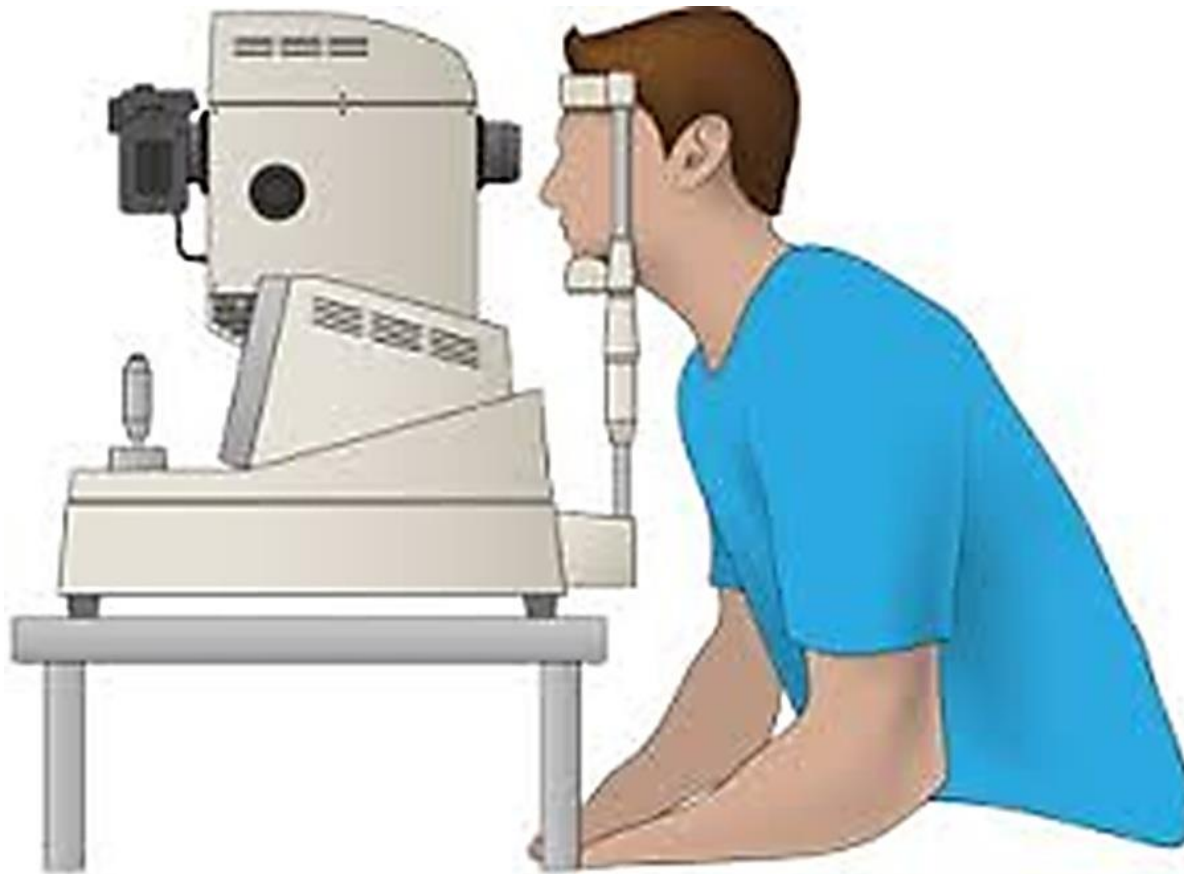
The Diabetic Retinopathy Eye Screening Grading Tool

By Nicholas Barclay

Senior Screener Grader with the Surrey NHS Diabetic Eye
Screening Programme

My background

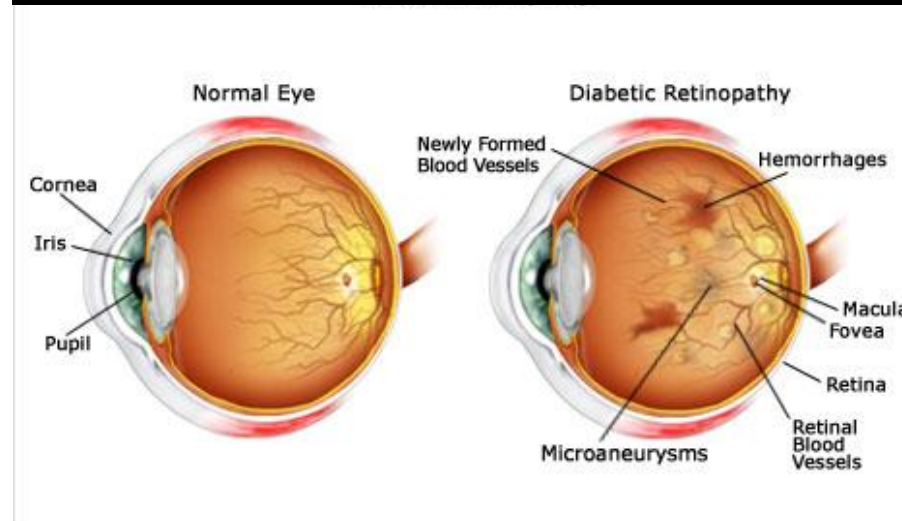
- Each month I screen over 400 patients



... and Grade more than 450 patient images



What drives me



My story



2015: attended a **S**ervice **I**mprovement **F**acilitators course run by Virgin Care, which included Nurses, Managers, Clinicians *and me a Screener Grader.*

Aim of the course :

- To develop service improvement ideas that would have significant benefits for our patients.
- Ensure that good ideas are not lost but developed correctly and implemented well.

First step: each delegate to come up with their own Service Improvement idea to use on the course.

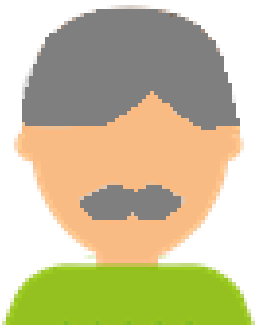
I discussed three ideas with my Programme Manager and I was inspired by remembering the *digital surveillance* idea which was adopted in our Common Screening Pathway.



My ideas were ...

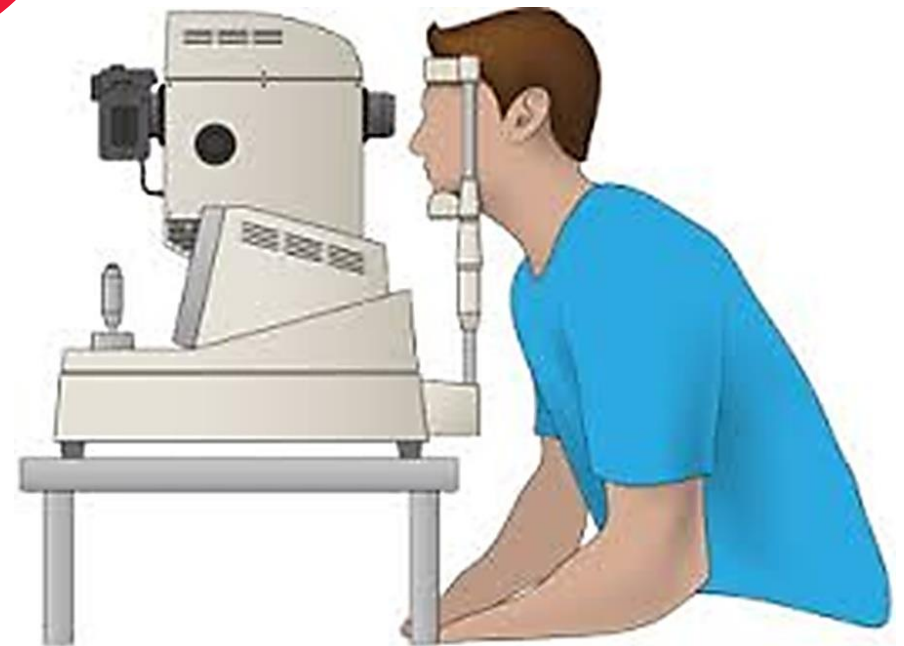
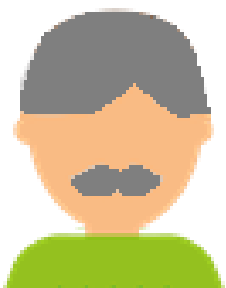
Idea 1

- Improved occluder – more hygienic and no moving parts.



Idea 2

- Making it easier for patients with a disability to fit chin on chin rest.



Idea 3

- An additional way of measuring key areas of the retina in place of a ruler that would work well with our software measuring tools.



We decided on idea 3 an additional manual measuring tool because:

- In some situations when it is difficult to measure key areas of the retina and we use a ruler – *we felt this could be improved upon with a more aligned to our service type of manual measuring tool.*
- An additional manual measuring tool would fit in nicely with our software and Objective 5 of our Grading Standards ***to ensure grading is accurate.***

My solution

The Grading Tool

Quick, accurate manual method

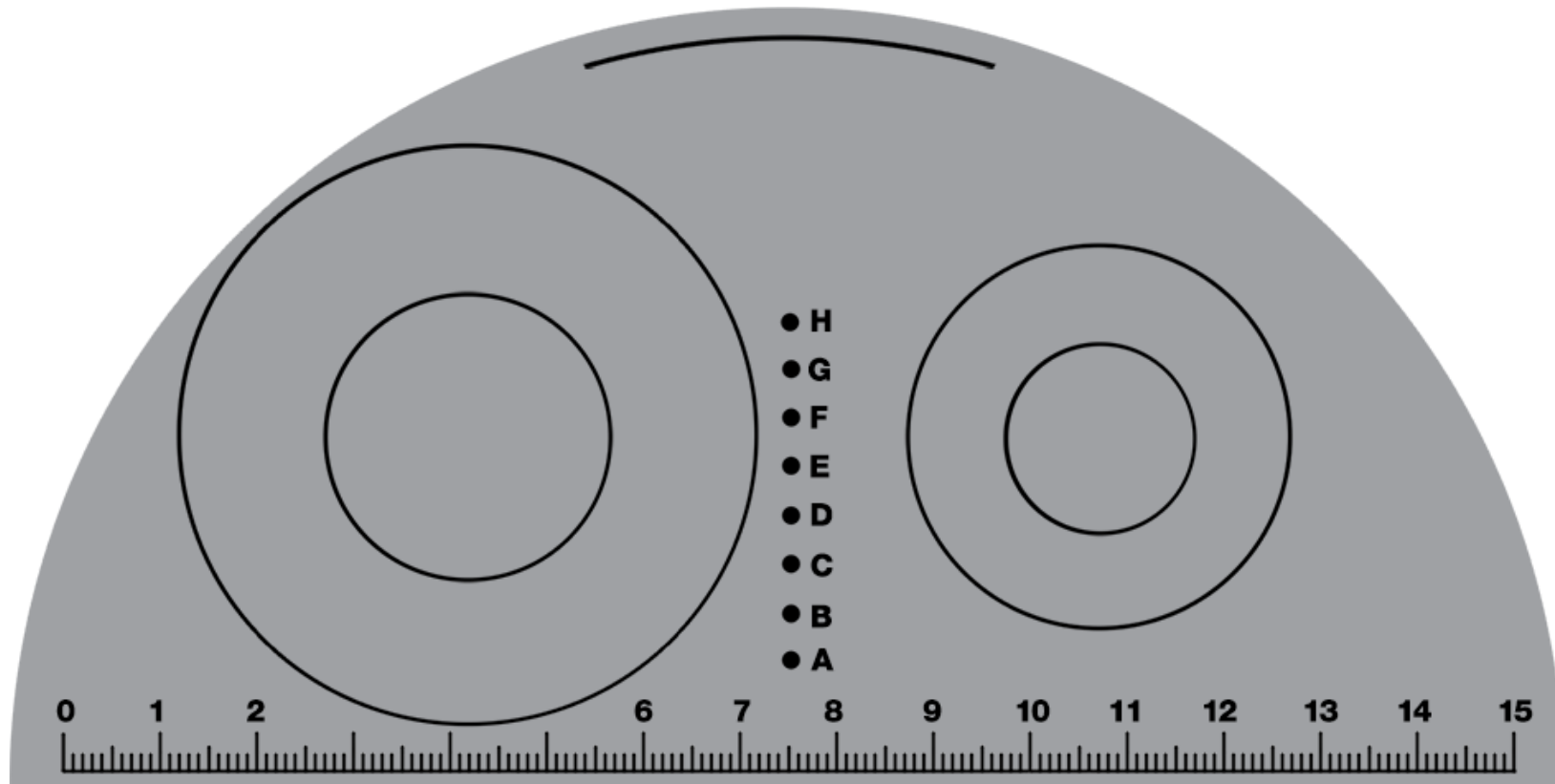
Portable

Easy to use

Compliments our grading software

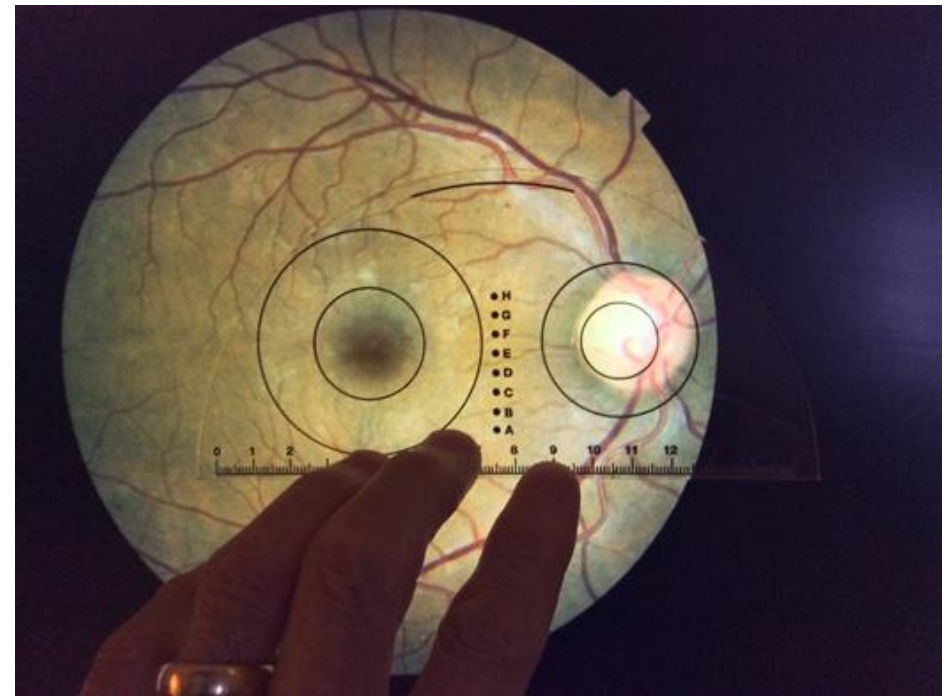
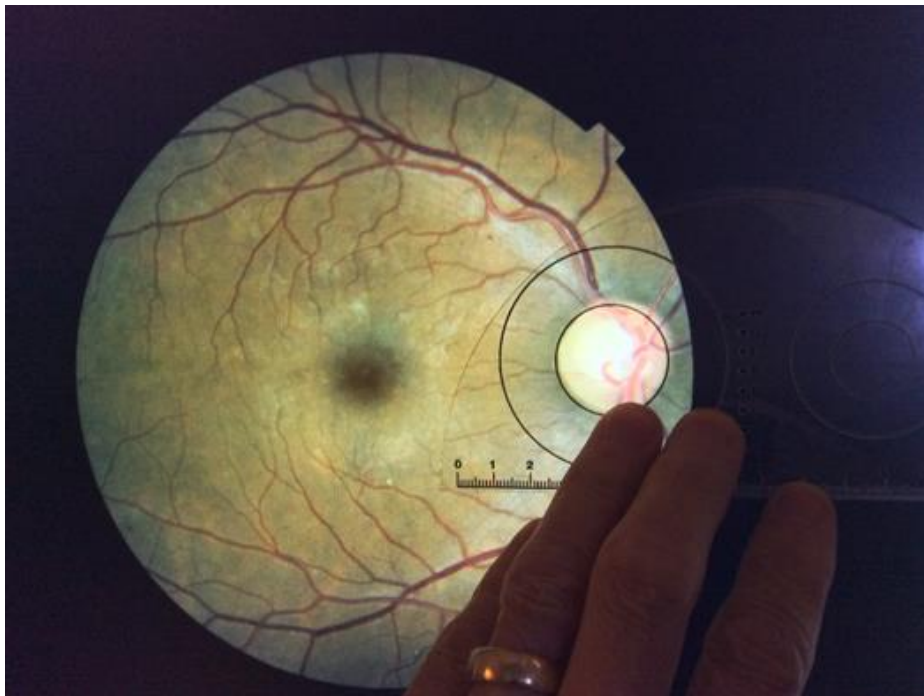
Objective 5 maintained

Meet the Grading Tool

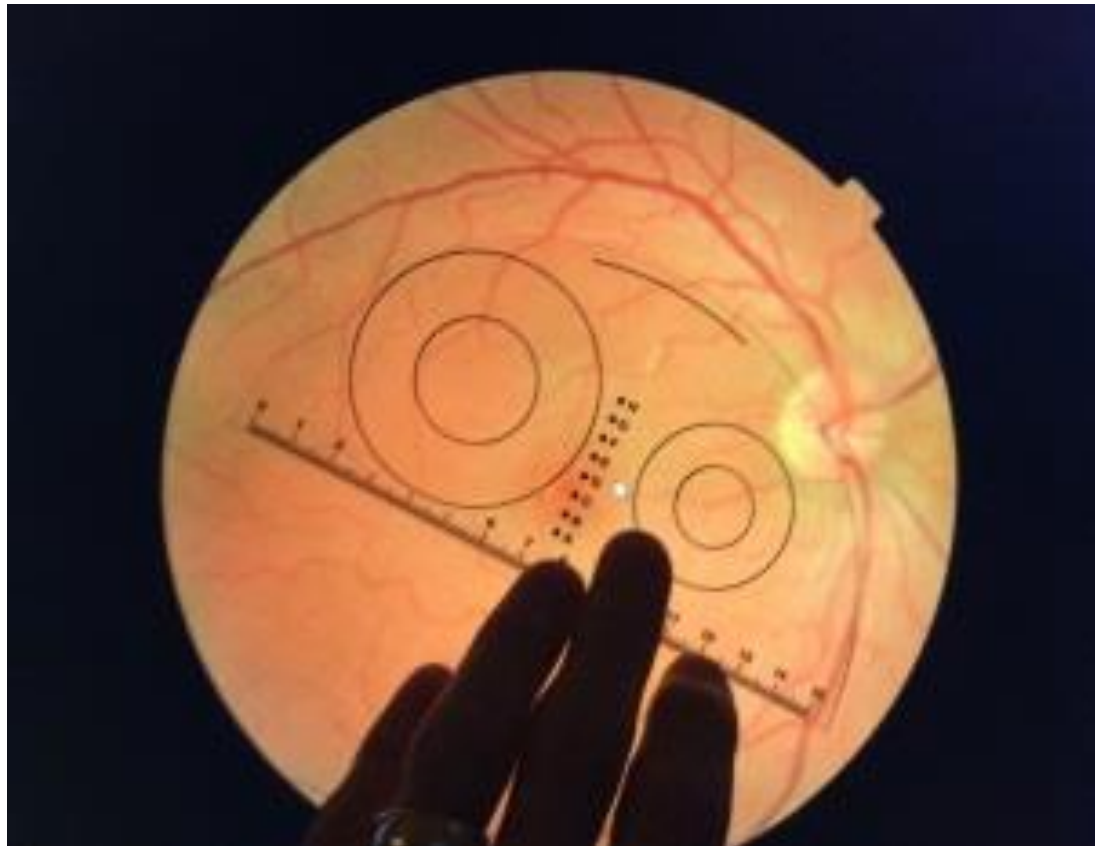


What does it do ...

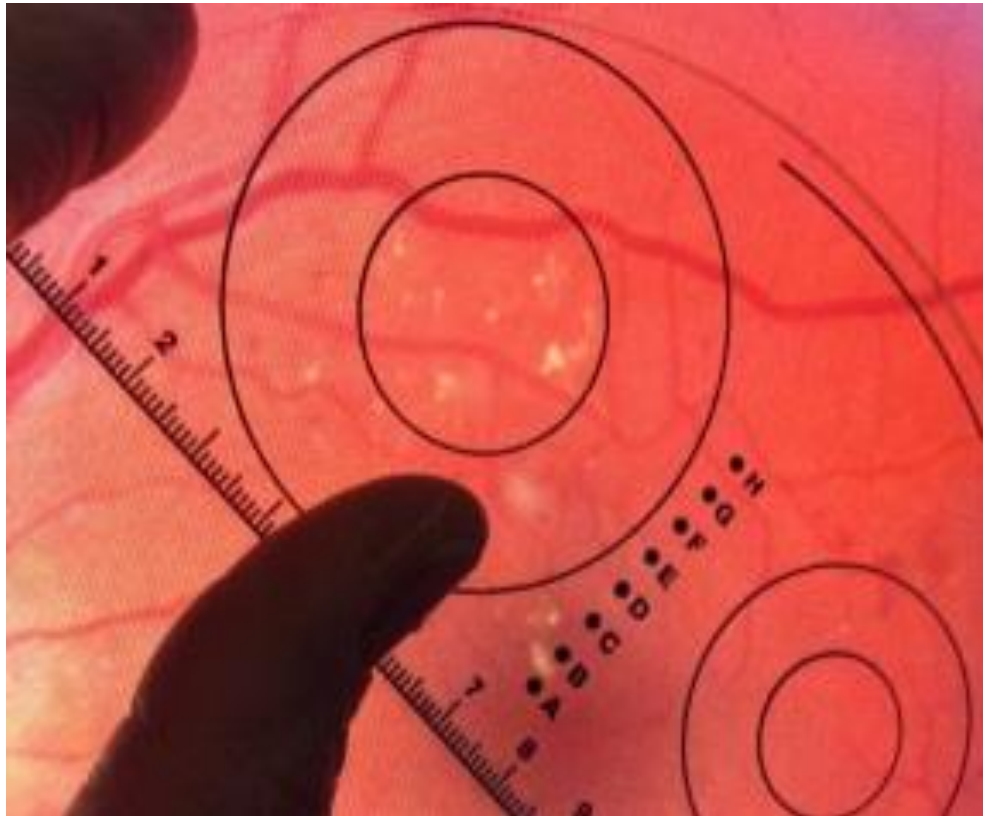
Measures one disc diameter from centre of fovea



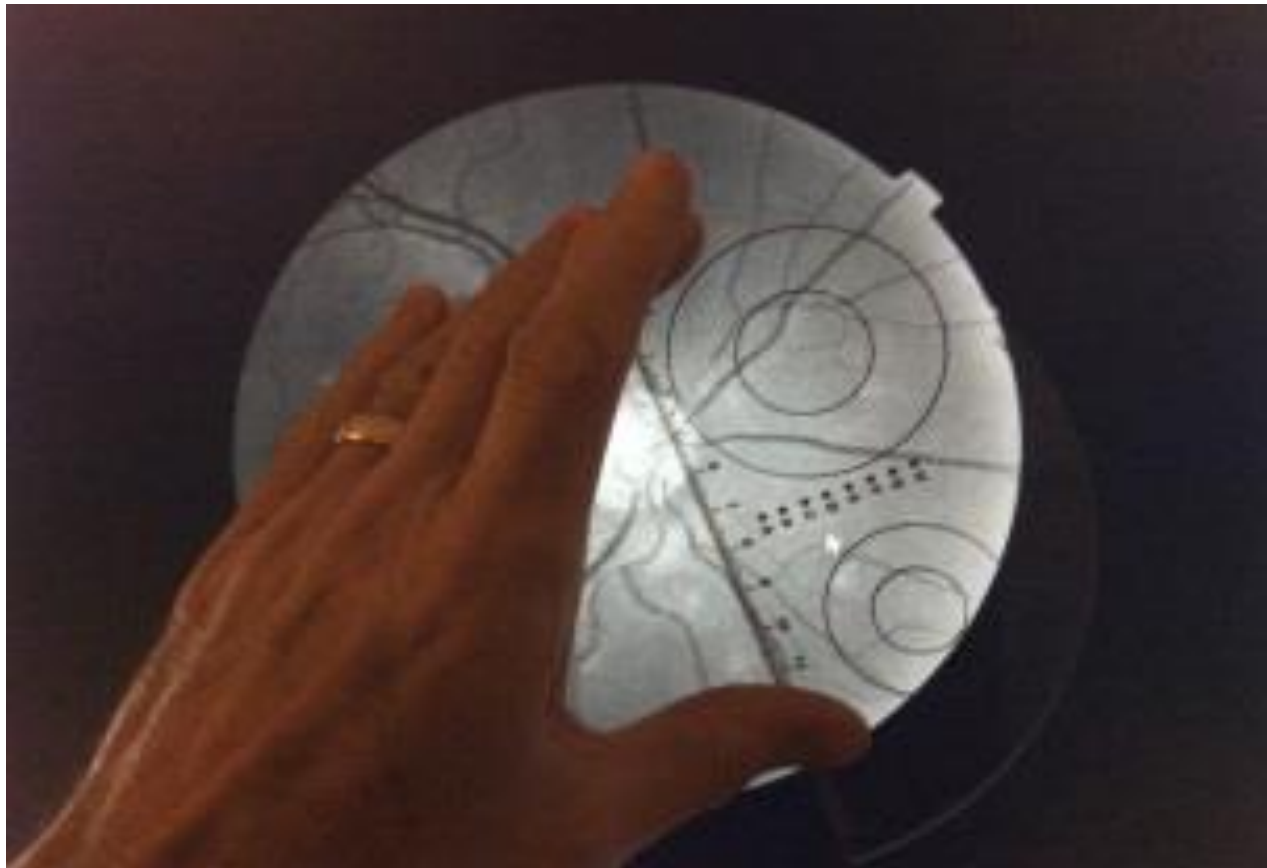
Verifies the boundary of the macular circle using the outer curve



Gauges the area of exudates using the inner circle



Checks the image is to national screening photographic standards



Highlights of the Grading Tool Project

- Attending the **SIFs** course and having my project proposal approved.
- Seeing the prototype produced and receiving good feedback from Graders' trials.
- Producing a Grading Tool Video which was included on Virgin Care and BARS Website and then receiving enquiries from Screening Programmes and Hospitals worldwide.
- Receiving an Innovation award from Virgin Care.
- **Presenting at BARS.**



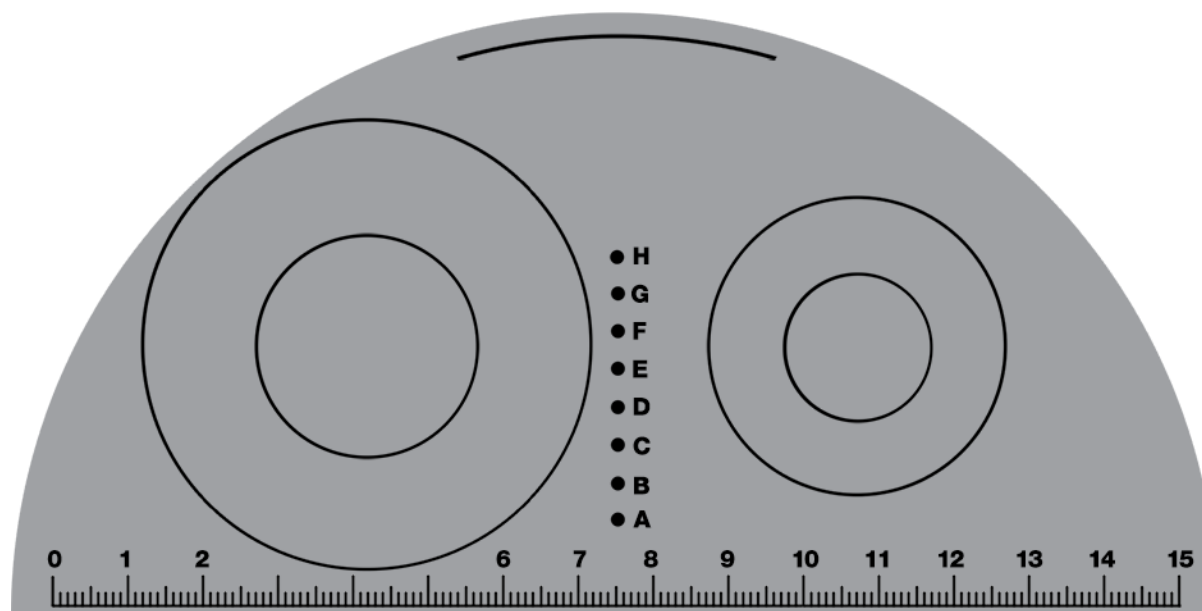
Where we are now

- The Grading Tool is now being used in the Surrey Diabetic Eye Screening Service.
- Virgin Care has registered the design (Public Licence).
- 250 have been kindly supplied by Virgin Care free of charge for distribution here at the BARS conference. Because they are still checking whether or not the tool is a medical device, we are taking a list of names and addresses and they will post you a grading tool when they have appropriate sign-off in place.
- Also available to download from Virgin Care website free and print using a local printer (laser cut).

What has Nick gained

- I have met so many nice people during the project which has given me enormous encouragement.
- I have learnt lots of new skills.
- My confidence levels have rocketed.
- I can't stop thinking of ideas (new occluder).

Thank you for listening



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*Providing care good enough for our own families.