

Diabetes is on the increase



Both Type 1
and Type 2
diabetes
increases by
5% year on
year

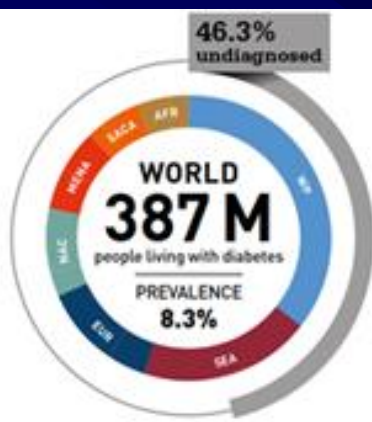
Reaching hard to reach seldom-heard-of groups

Tunde Peto

DESP, Northern Ireland, UK

Paul Vittles said

- Nobody is hard to reach, just more expensive to reach. You need to put more effort and creativity to reach them.



i/12
people with
DIABETES



4.9 million deaths in 2014

$\frac{3}{4}$ live in low and middle income countries

More people die of diabetes than of malaria, TB, AIDS/HIV altogether!

Diabetes related blindness increases by 8%, moderate visual loss by 29% year on year!

The DR Barometer Global Report: Overview

The DR Barometer study was conducted in 41 countries. Globally 4,340 adults with diabetes and 2,329 health care professionals provided new information about the experiences of living with, managing and treating diabetes, DR and DME.

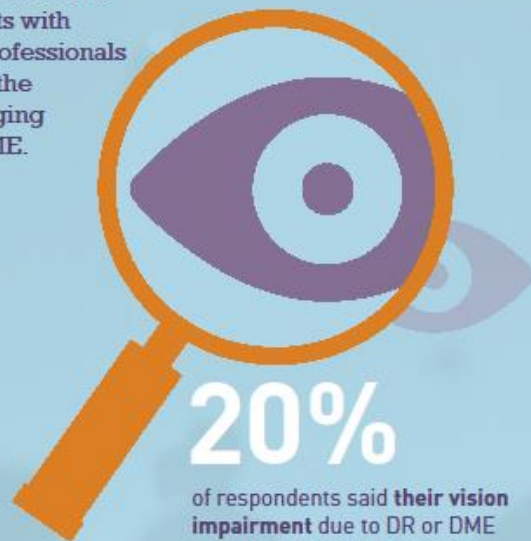
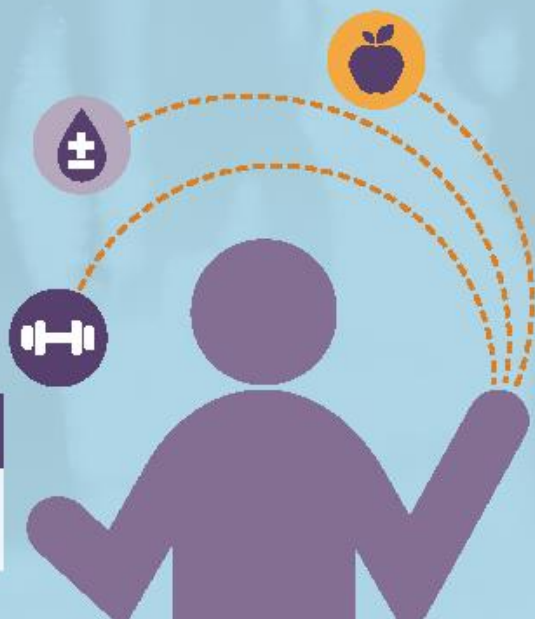
38%

of patients said that **long wait times for an appointment** were a barrier to eye exams



44%

of all providers **did not have, or did not use, written protocols** for the management of diabetes-related vision loss



20%

of respondents said **their vision impairment** due to DR or DME made it **difficult to manage their diabetes**



79%

of patients with vision loss due to DR or DME said that their condition made everyday activities, **such as driving**, working and completing basic household tasks difficult and in some cases impossible



69%

of those with DME experienced days of **poor physical and mental health**

27%

of patients either **never discussed eye complications with their doctor** or did so only after the onset of symptoms



21%

of ophthalmologists **had not received specific training** in the treatment and diagnosis of DR and or DME

DR: Diabetic Retinopathy
DME: Diabetic Macular Edema

DRBarometer.com

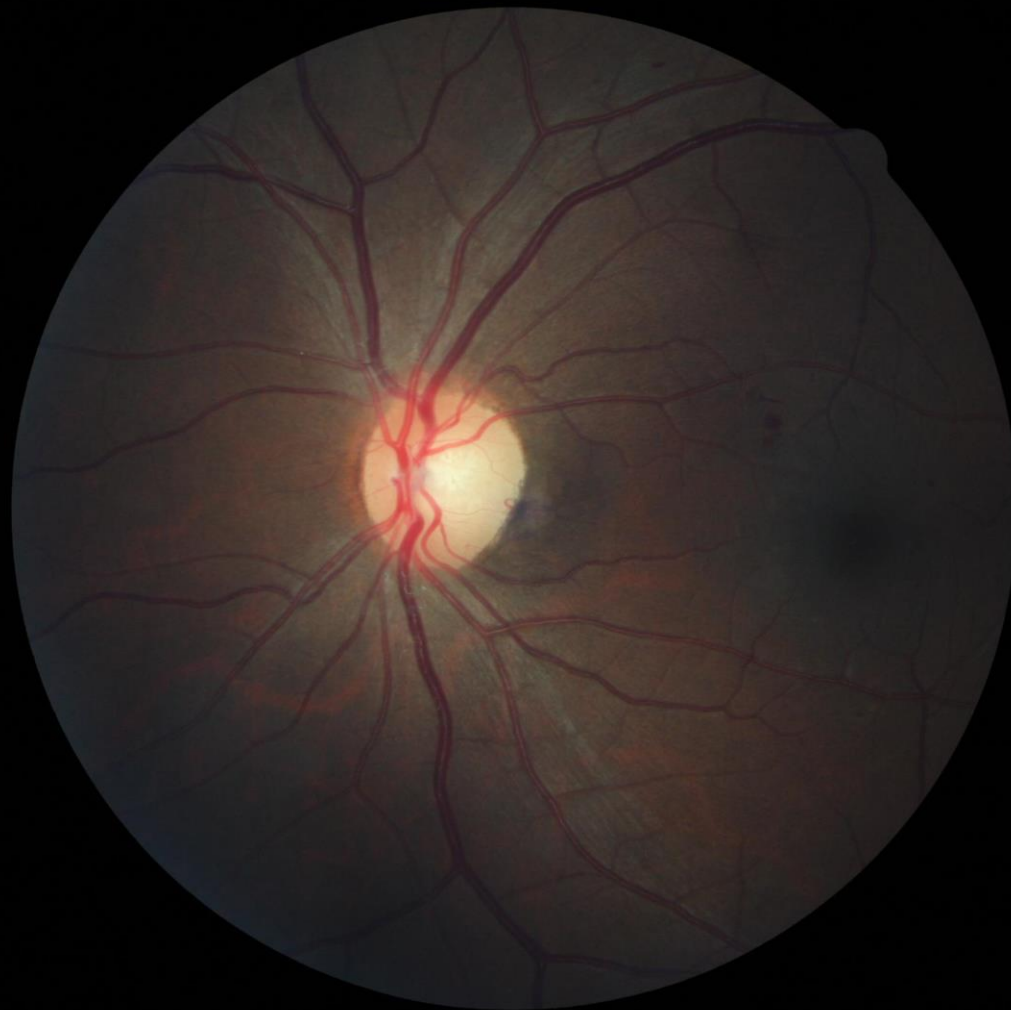


2009









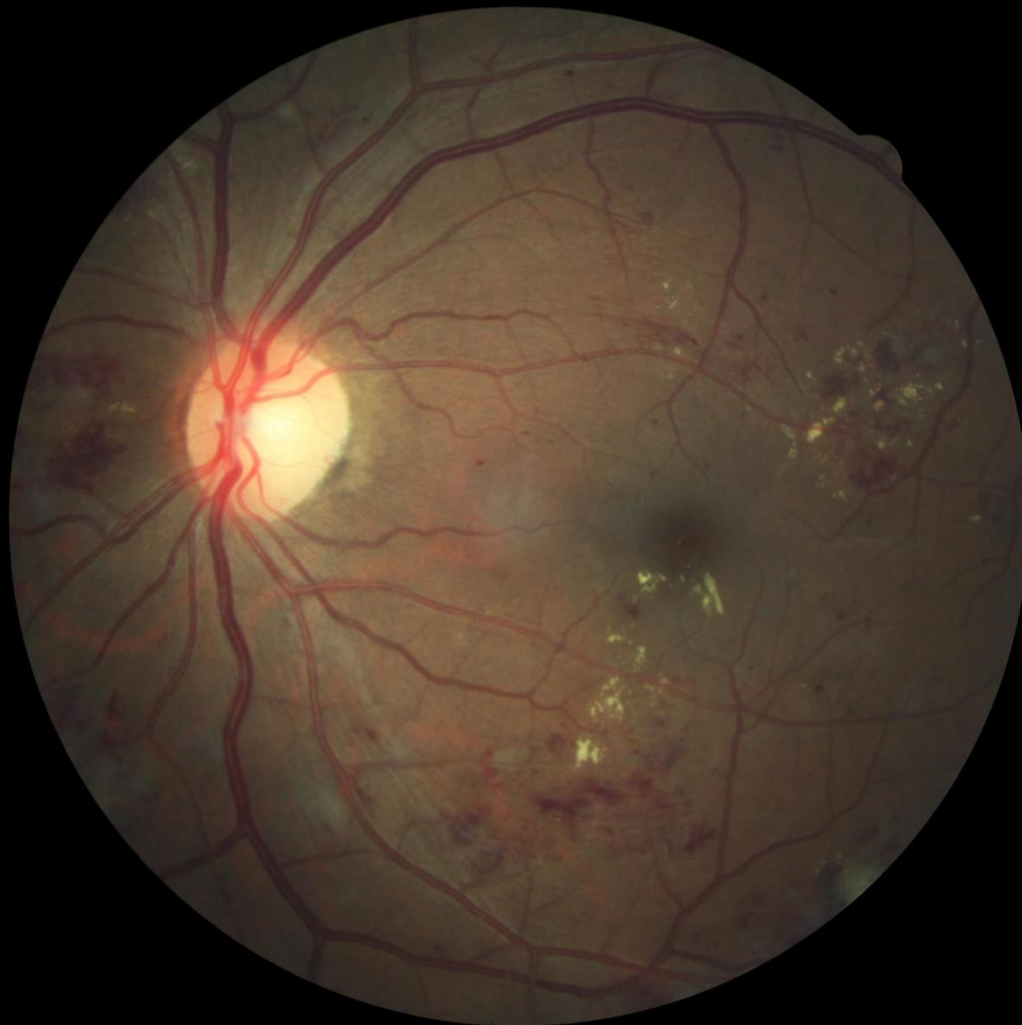
RIMo-EM

2010, 2011
DNA screening

2012









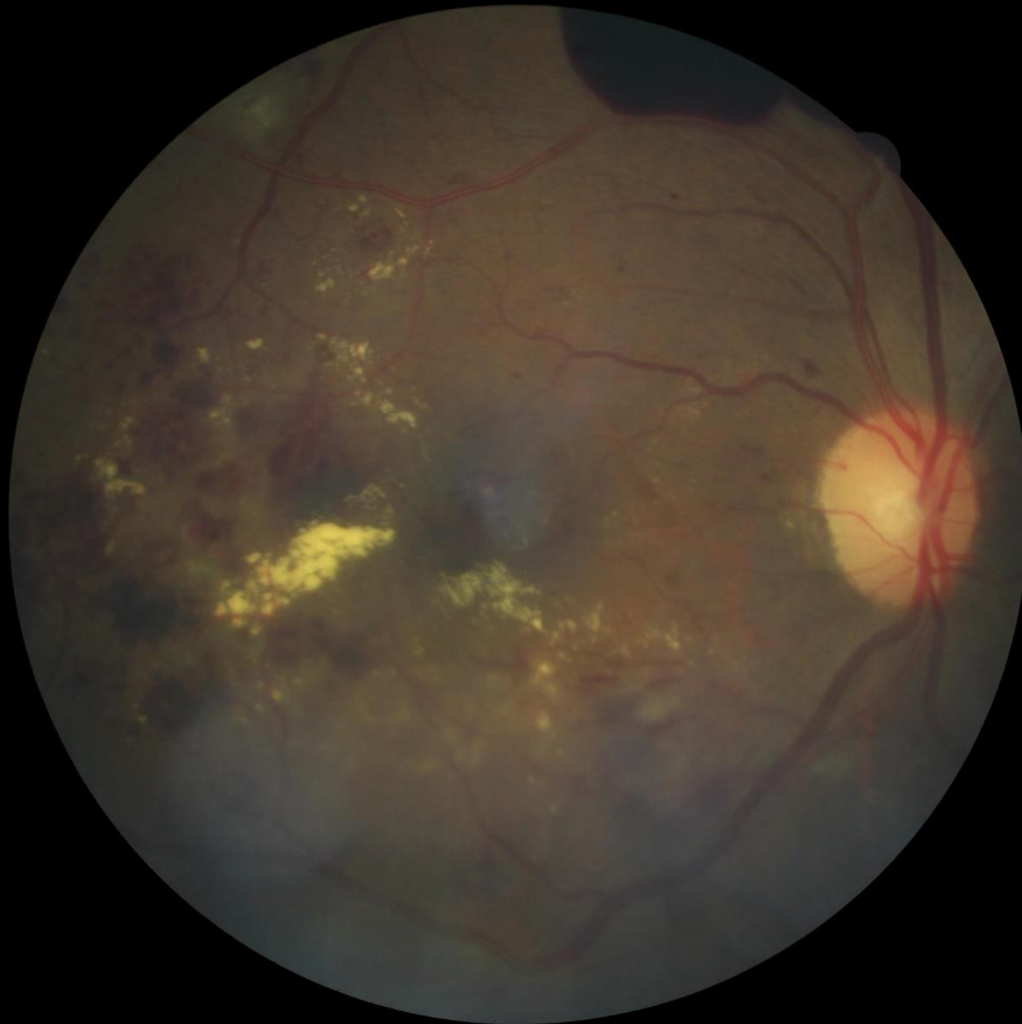
R2M1 05/11

2 x DNA Ophthalmology

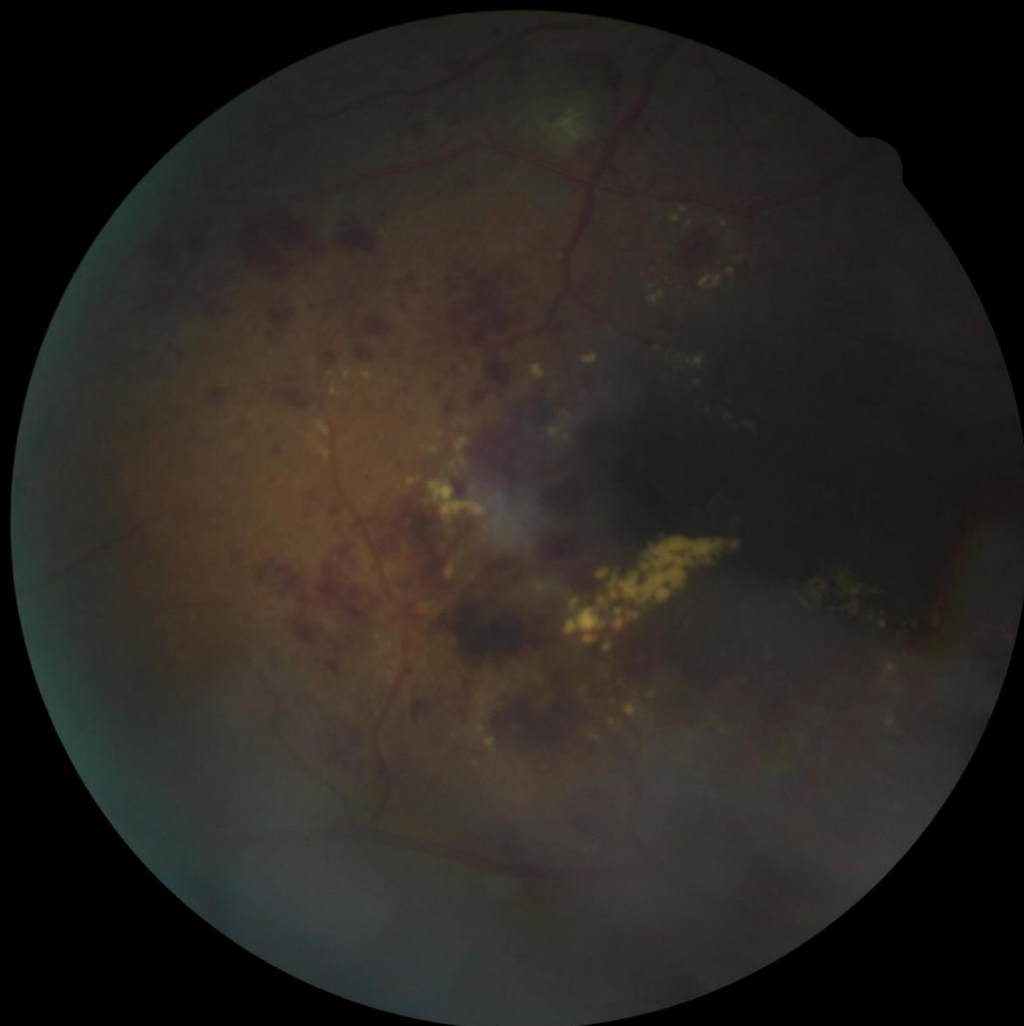
Discharged back to screening

2014, 2015 DNA screening

2015













Diabetes: Complications

Macrovascular

Stroke

Heart disease and
hypertension

Peripheral
vascular disease

Foot problems

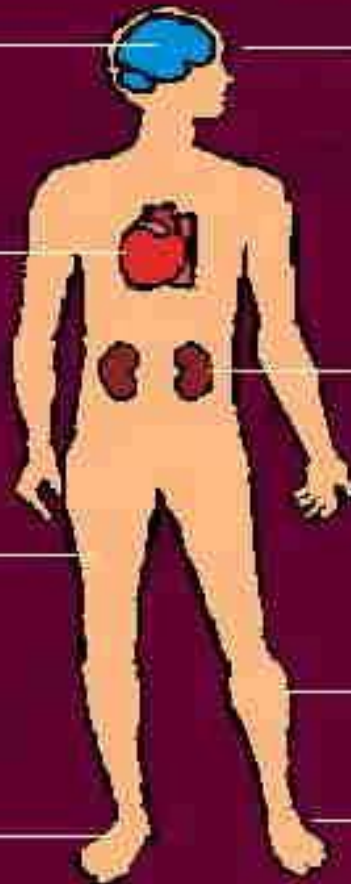
Microvascular

Diabetic eye disease
(retinopathy and cataracts)

Renal disease

Neuropathy

Foot problems



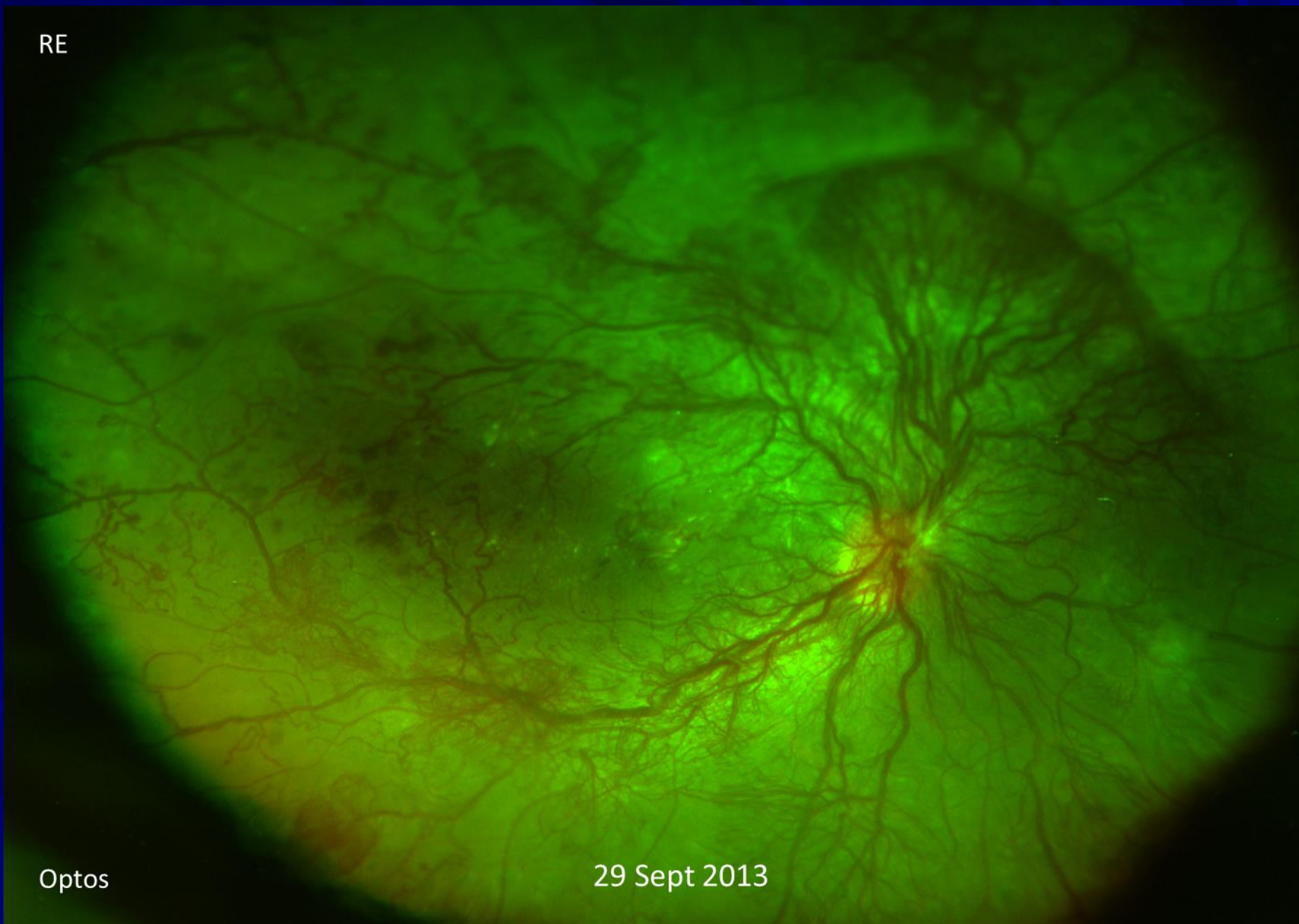
Take the camera to the dialysis unit

- Patients attend 3 times a week at dialysis
- We took the services to the Dialysis Unit
- 1:4 had untreated PDR, national average is 1:429!

RE

Optos

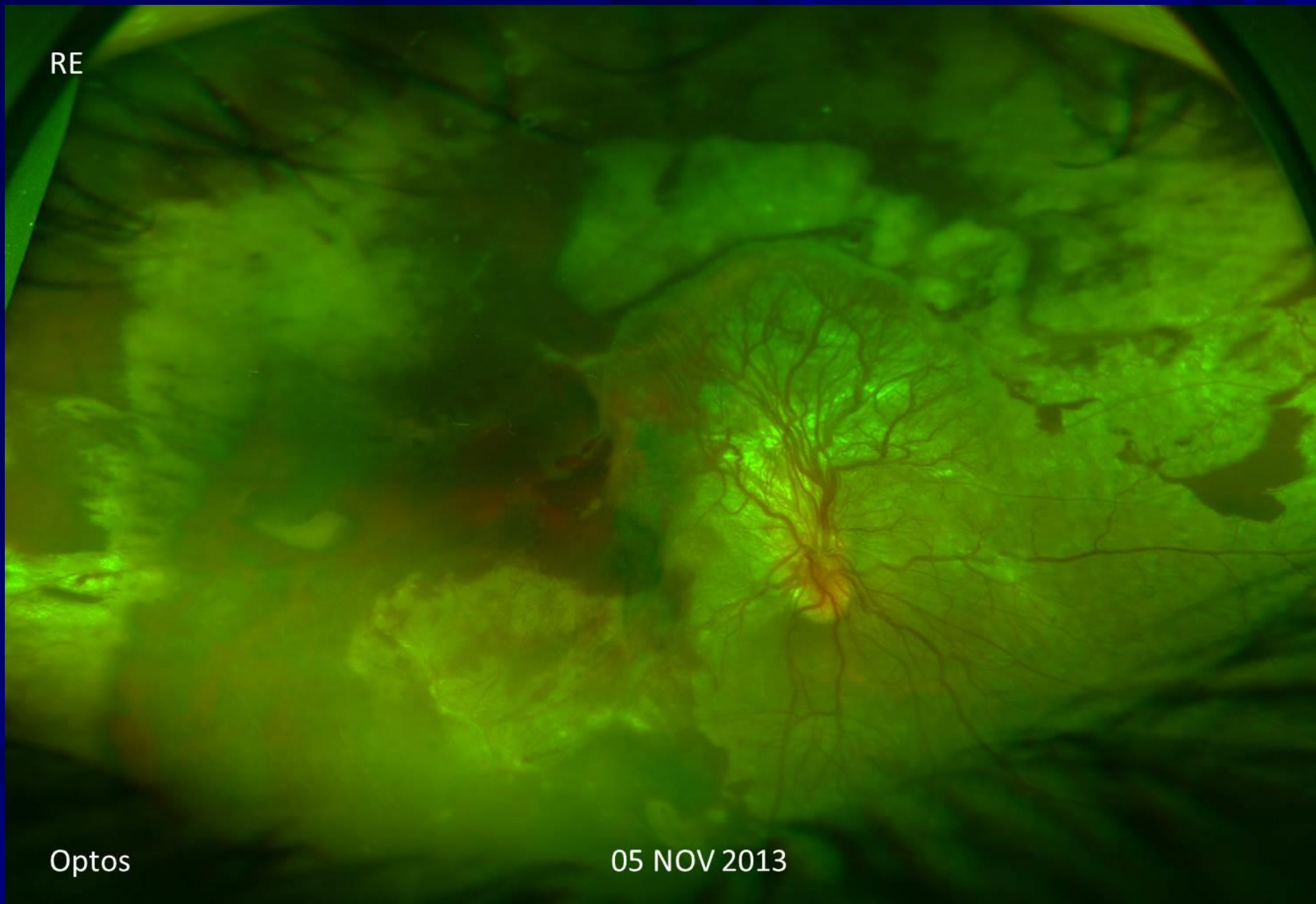
29 Sept 2013



RE

Optos

05 NOV 2013

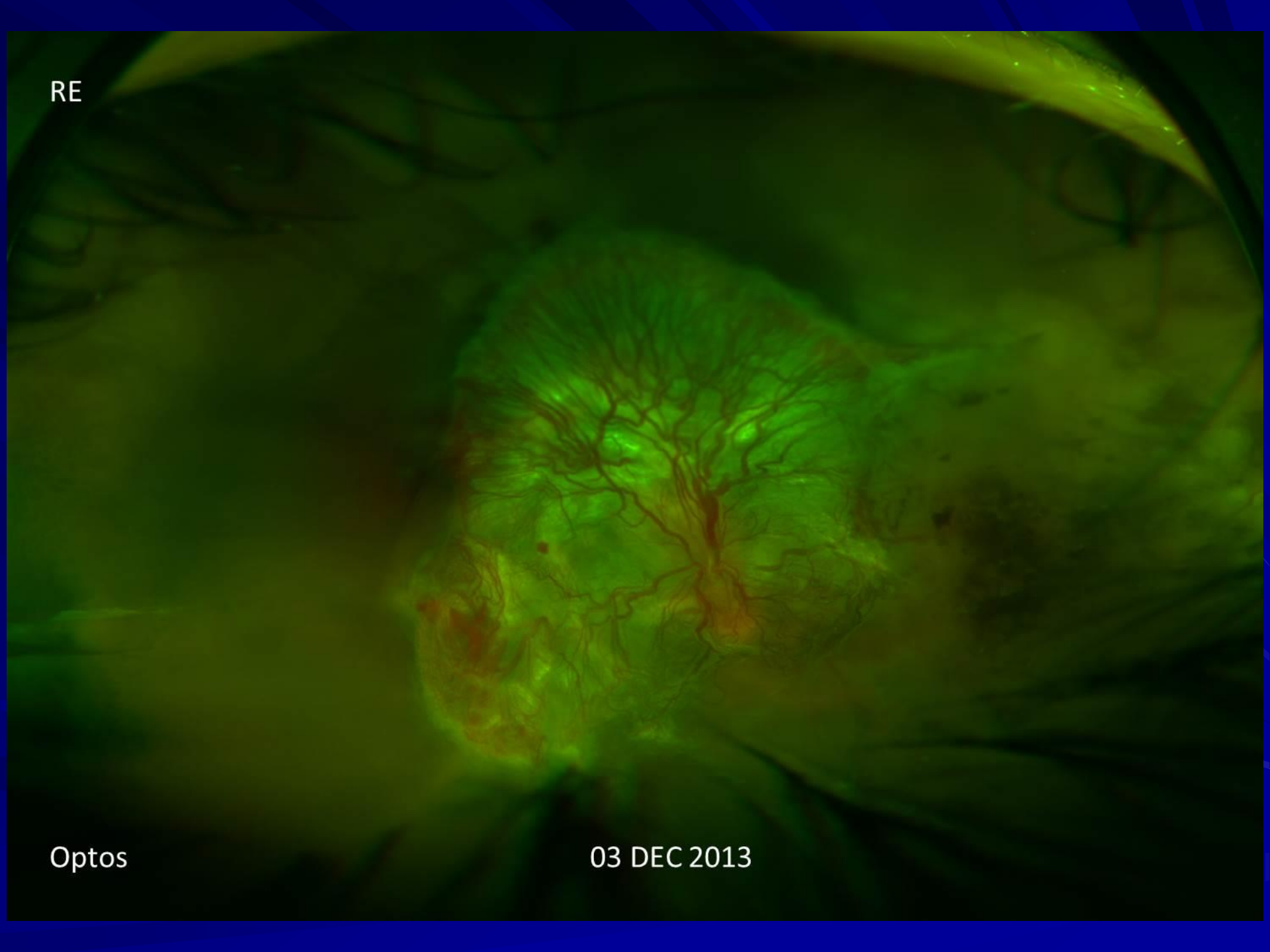


What are the characteristics of
this patient?

RE

Optos

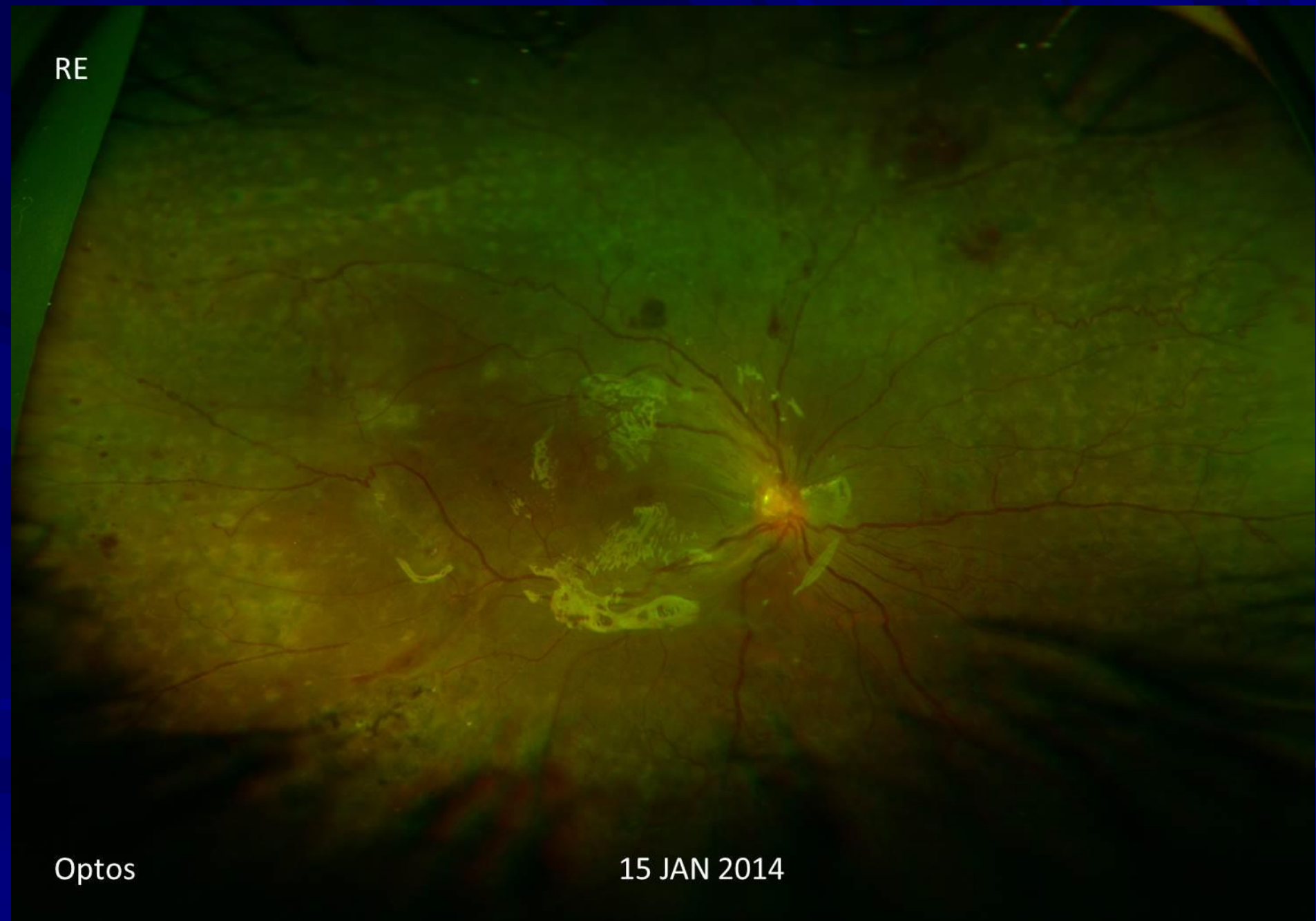
03 DEC 2013



RE

Optos

15 JAN 2014



LE



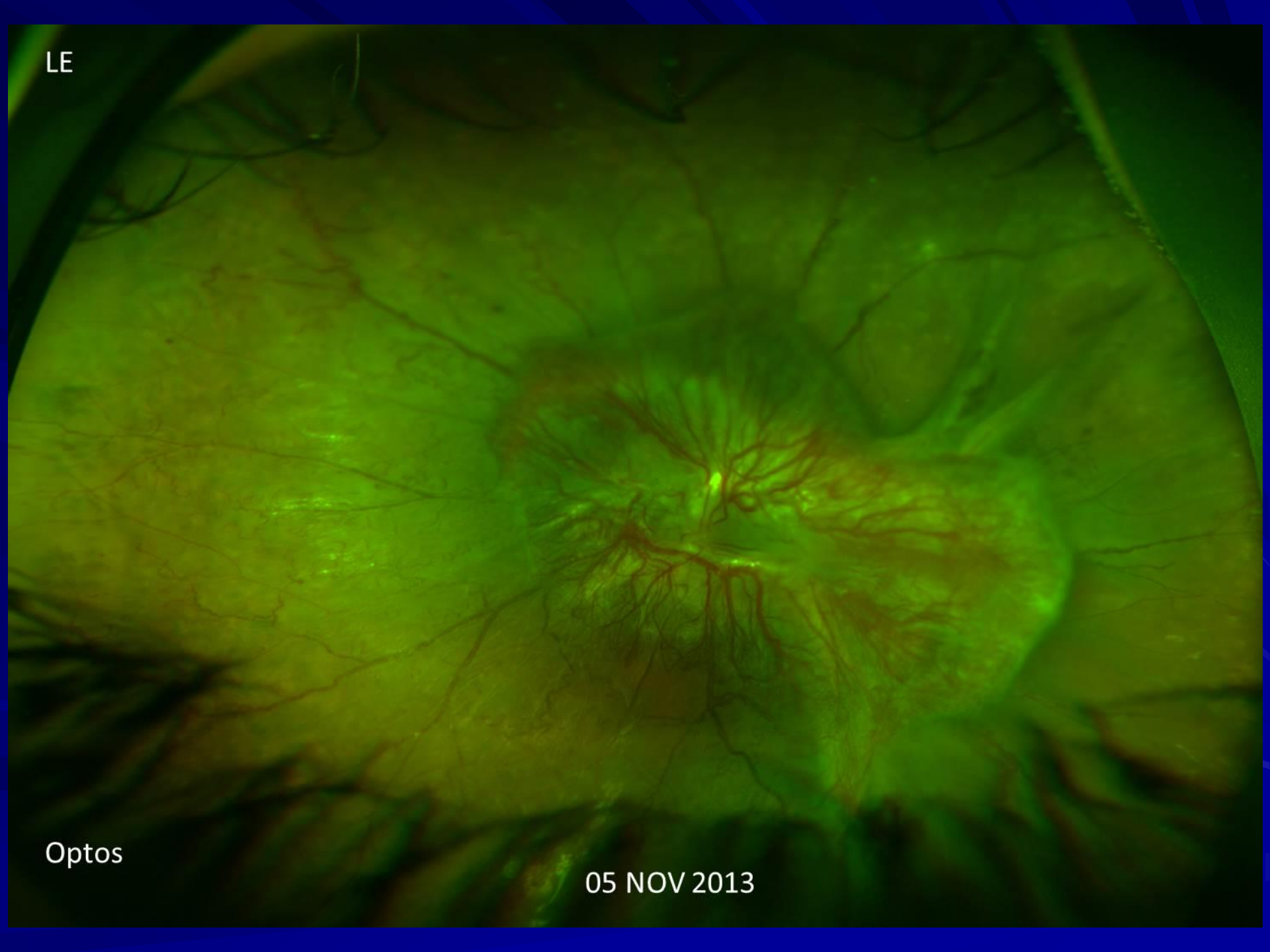
Optos

29 Sept 2013

LE

Optos

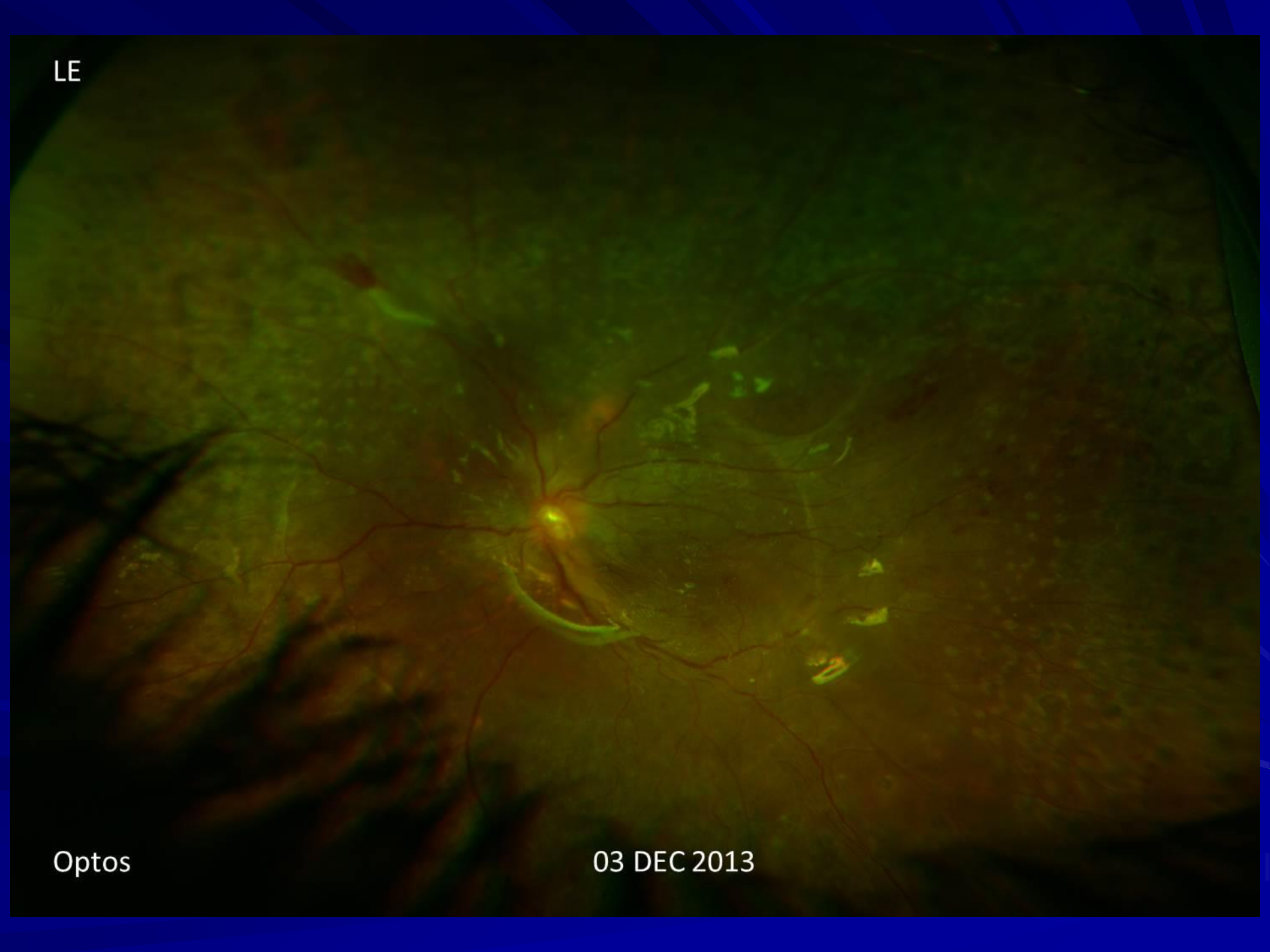
05 NOV 2013



LE

Optos

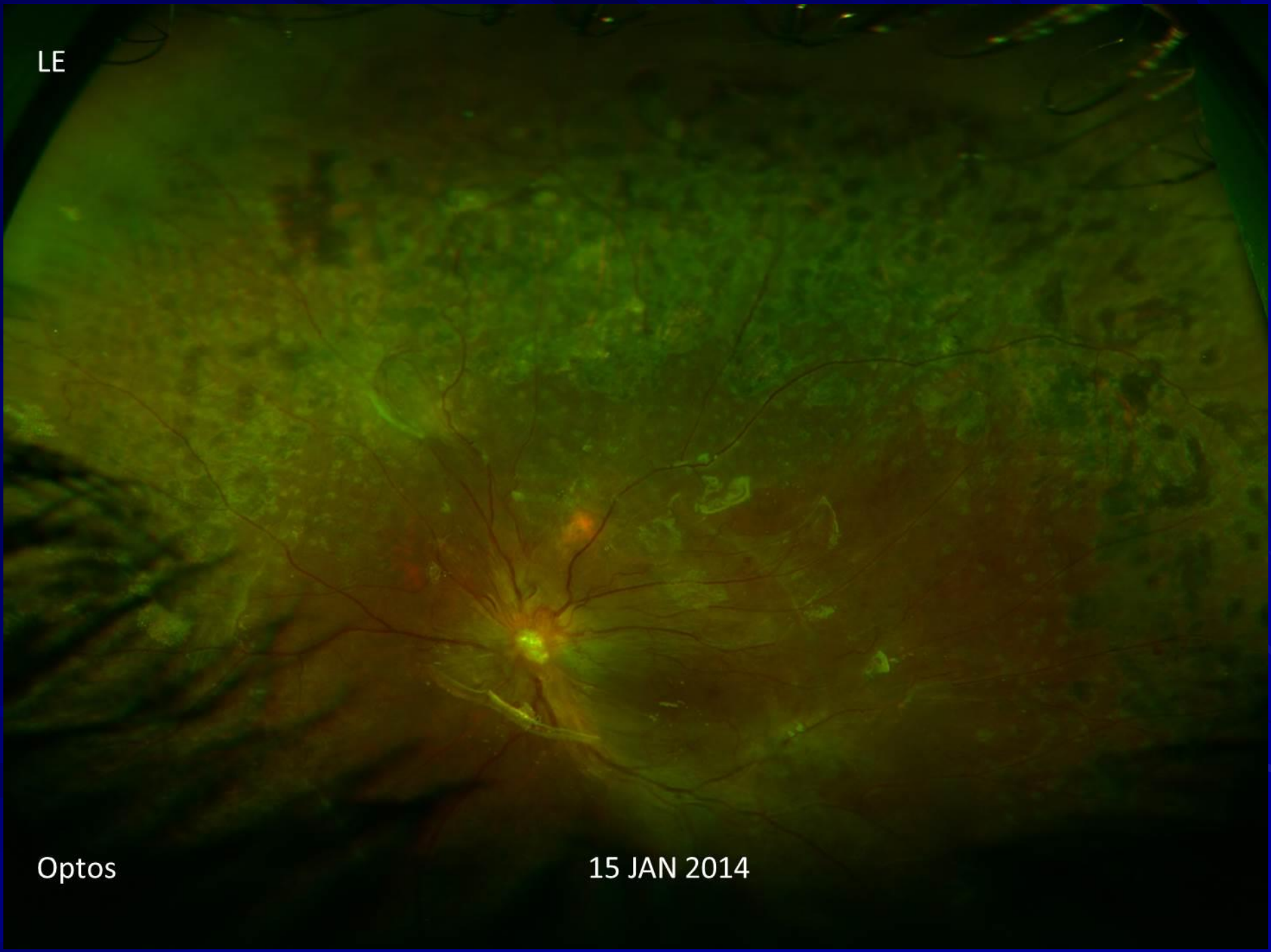
03 DEC 2013



LE

Optos

15 JAN 2014



Methods

- 235 young adults with T1DM attending transitional diabetes clinics were identified
- Demographic and Clinical data, including HbA1c, were extracted
- H&C numbers of these patients were used to search the NI Diabetic Eye Screening database (DESPNI)
- Attendance at the past 2 appointments offered (over an 18 month period) and most recently documented severity of eye disease were recorded

Results

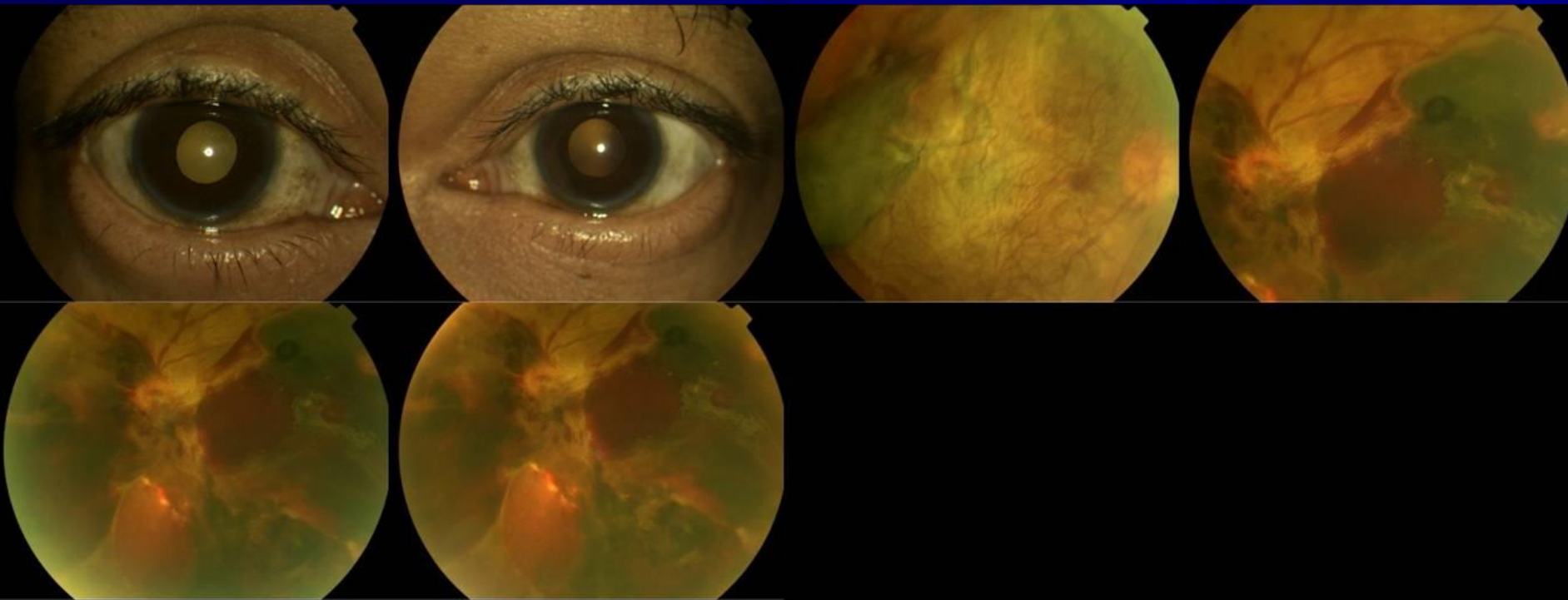
- 12 patients were not known to DESP-NI
 - Average DM duration was 10.85 years
- Screening offers
 - All 223 were offered screening
 - 121 were offered one
 - 102 were offered more than one appointment
- Screening attendance (at most recent appointment)
 - 95 did not attend (45.3%)
 - 6 postponed/cancelled

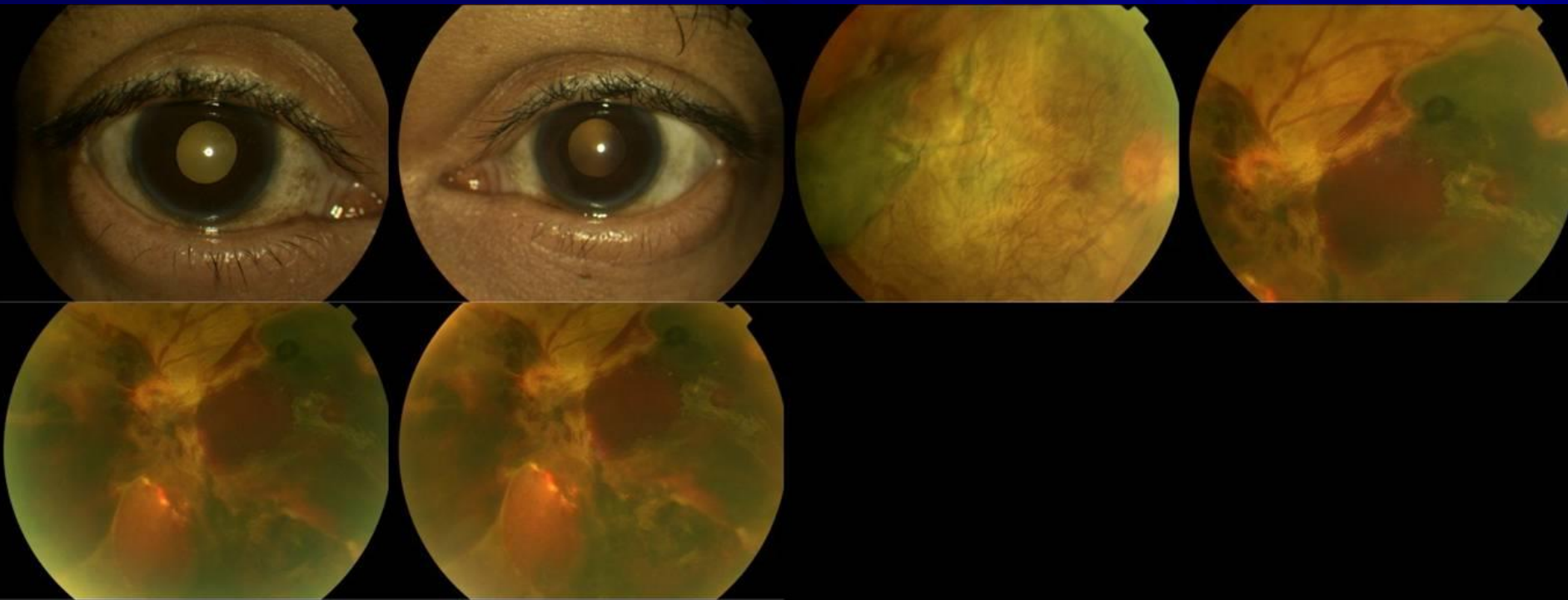
Actions

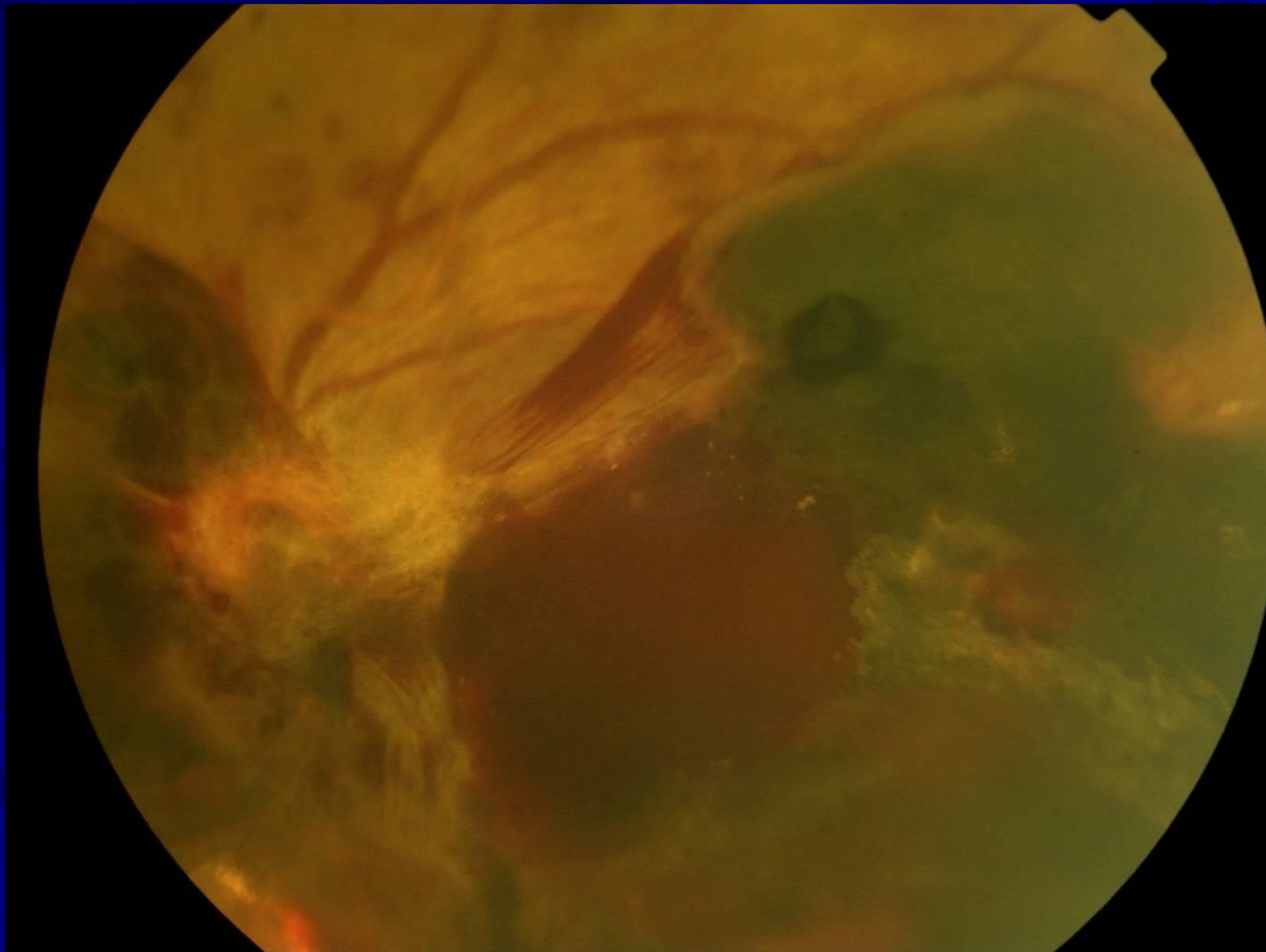
- Placed a camera to the Transition Clinic
- Attend Patient/parent support groups
- Attend Diabetes Camps
- Over 90% attendance achieved in 18 months!
- Pregnancy pathway followed suit

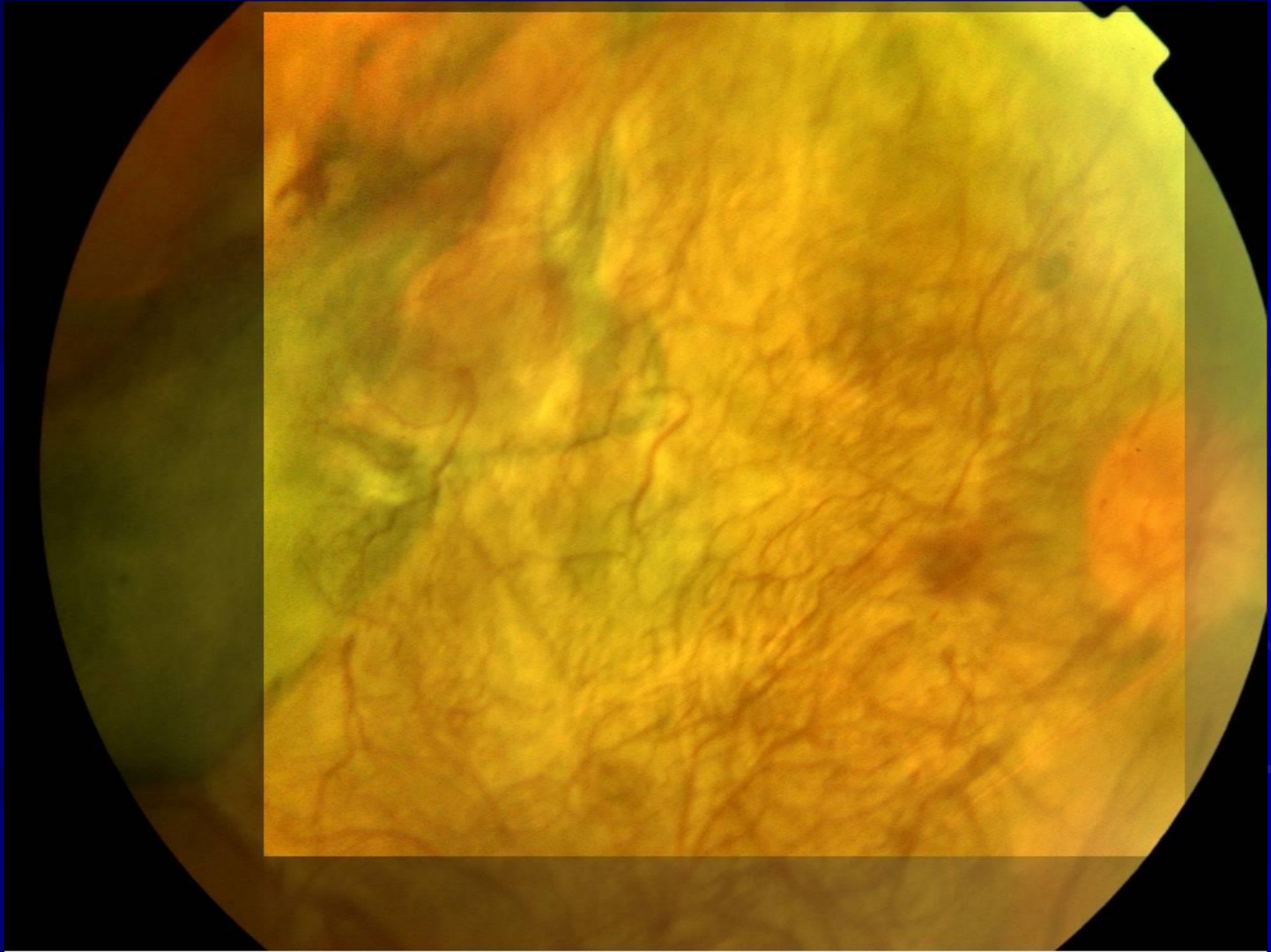
The difference is

	Mean HbA1c (range; mmol/ml)	Frequency of HbA1c /year	Average Non responses (NR) and DNA's		Mean HbA1c (range)	Frequency of HbA1c /year	Average DNA's and Non responses	P Value
			NR	DNA			NR DNA	
16-19	66.7 (49-82)	1.78	0	0	90 (61-171)	1.2	4.9 2.2	0.01
20-23	70.0 (45-123)	2.2	0	0	82 (42-146)	1.4	4.9 2.2	0.04
24-27	69.1 (42-112)	2.2	0	0	75.5 (45-118)	0.9	4.7 2.2	0.31









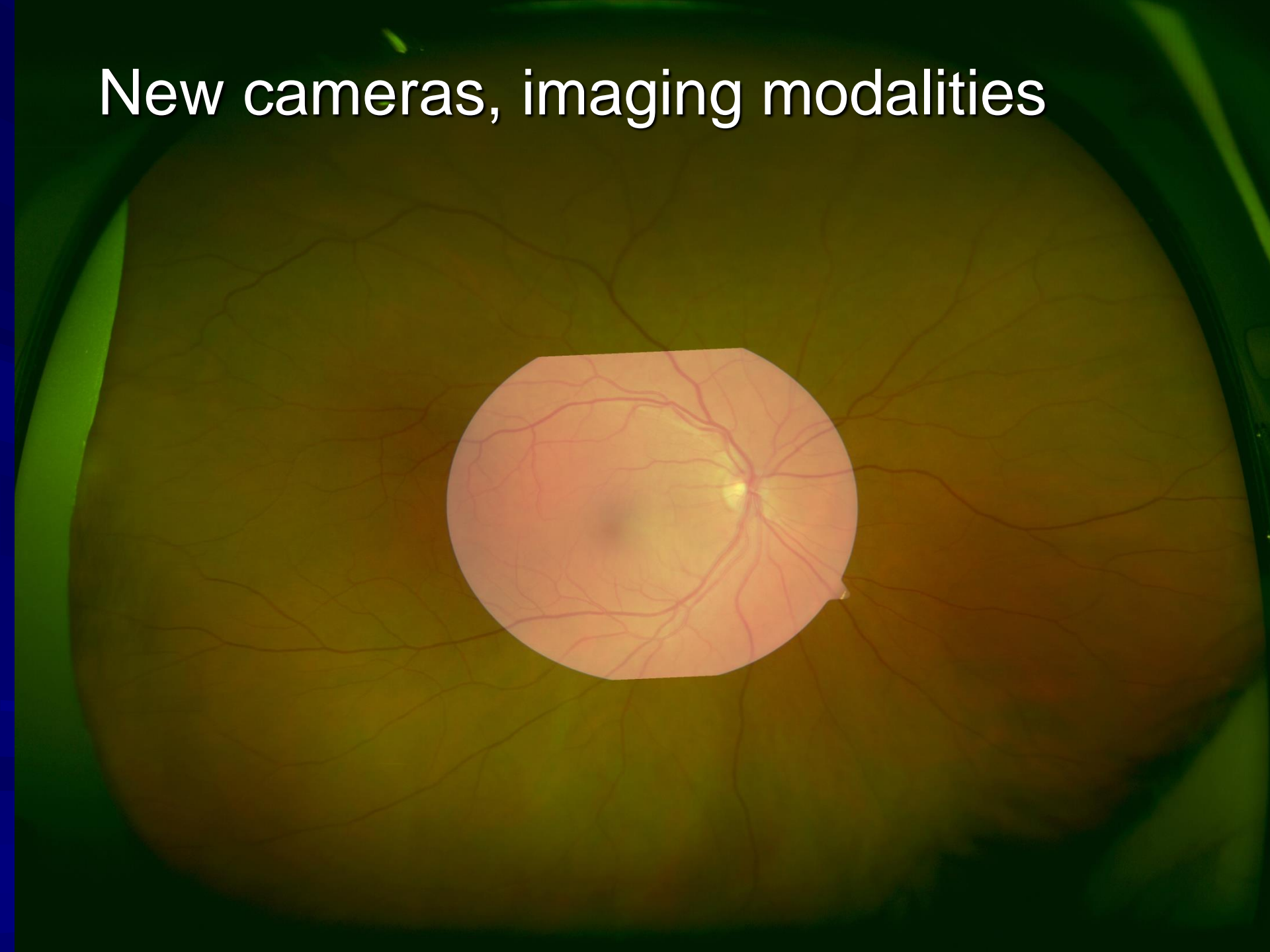
Where did this go so wrong?

- Young patient, does not wear glasses
- Visually not demanding job
- Not keen on reading/writing, does not have access to computers

Online

- Female patient classified as hard-to-reach by the Breast Cancer Screening programme:
 - DNAd two appointments
 - Cancelled and rebooked 3 more before attending the final one
 - Did not answer phone calls
- This patient is characterised by.... in 3 words

New cameras, imaging modalities



Conventional camera

Courtesy of David Steel

17/03/2015

1

OPTOS



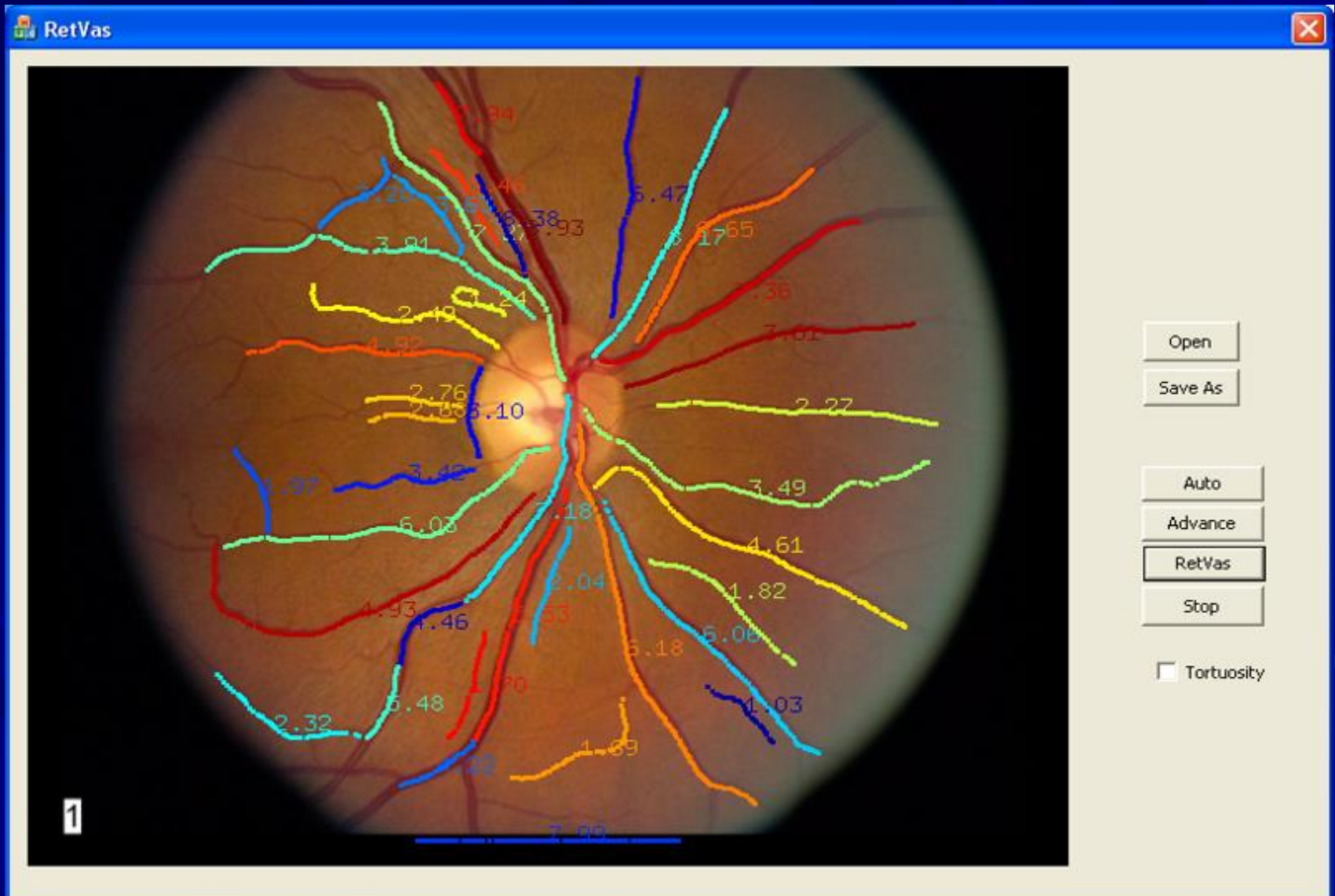
Courtesy of David Steel

Eidon



Working with physicians: vascular measurements

Putting the eye back into the body!



Diabetes

15 HEALTHCARE ESSENTIALS

DiABETES UK
CARE. CONNECT. CAMPAIGN.

There's a minimum level of healthcare everyone with diabetes should receive:

1 Your **blood glucose levels** measured (HbA1c blood test)

2 Your **blood pressure** measured and recorded

3 Your **blood fats** (cholesterol) measured

4 Your **eyes screened** for signs of retinopathy

5 Your **feet checked**

6 Your **kidney function** monitored

7 Your **weight checked** and your **waist measured**

8 If you smoke, **support to help you quit**

9 A **care planning review** to discuss and agree goals between you and your healthcare team

10 Access to a local **diabetes education course**

11 If you are a child or young person, care from specialist **diabetes paediatric healthcare professionals**

12 Continuing high-quality **diabetes care when you're in hospital**

13 If you're a woman who is **planning to have a baby**, high-quality support from specialist diabetes healthcare professionals from preconception through to post-natal care

14 Help from **specialist diabetes healthcare professionals** to manage your diabetes

15 **Emotional and psychological support**



At least once a year