Some observations

Past to present

David Henson

1973-76

Frequency of misses in eyes with glaucoma

Frequency of misses in normals


Faculty of Biology, Medicine and Health
At damaged locations variability is high and add noise to the current quantification methods

Led to a complete re-think of the way we undertake visual field tests

Provided the basis for simulation of VF defects.

Good example is the extension of this work by Stuart Gardiner


Current Pathway

Community Optometrist

General Practitioner

Hospital Eye Service

New Pathway

Community Optometrist

General Practitioner

Accredited Community Optometrist

Hospital Eye Service

Manchester glaucoma team

Leaon Au
Cecilia Fenerty
Patrick Gunn
Robert Harper
Amanda Harding
Joanne Marks
Karl Mercieca
Fiona Spencer

http://discusproject.blogspot.co.uk/


Rate of change

<table>
<thead>
<tr>
<th>GSS2 stages</th>
<th>0</th>
<th>Borderline</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Rates of loss (db/year)</td>
<td>0.01</td>
<td>-0.02</td>
<td>-0.04</td>
<td>-0.15</td>
<td>-0.12</td>
<td>-0.23</td>
<td>-0.23</td>
</tr>
<tr>
<td>Number with rates &gt;2dB/year</td>
<td>0</td>
<td>0</td>
<td>1%</td>
<td>3%</td>
<td>9%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Number presenting late</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>72% 95%</td>
</tr>
</tbody>
</table>
Reducing visual impairment

- Sudden loss of visual field
  - rare event
  - solution is more frequent testing
    - difficult to justify

- Early case detection
  - need to reach healthcare avoiders
  - promotions encourage the worried well to come earlier
  - Solution is increased accessibility to simple, rapid, enjoyable tests

Percentage of undetected cases

% new cases: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

West of Ireland
Baltimore Eye Study (Blacks)
Baltimore Eye Study (Whites)
Barbados Eye Study
Beaver Dam Study
Rotterdam Study
Blue Mountains Study
Victoria, Aust
Melbourne VI Project
North London Study
Egna Neumarkt Study
Arizona Hispanic study
Los Angeles Latino Eye Study
Thessaloniki Eye Study
62,455,367 copies of CLOCK CHART® were released in newspapers

350,783 (5%) subsequently consulted a doctor

31,076 of them were diagnosed with glaucoma.

9,342 received medical treatment

A new multi stimulus self-check visual field screener, CLOCK CHARTs
Matsumoto C, Eura M, Okuyama S, Takada S, Arimura E, Hashimoto S, Tanabe F, Shimomura Y

Self test

- Existing patients encouraged to regularly test their own VF
- Bring there results along to clinic appointments
- Allows more frequent testing and, potentially, more accurate measurement of rates

- Develop down loadable self test
- Create an app
Self testing

VuScope Visual Field Screener

Damato Multifixation
Campimeter - Online Version

iPad perimeter
Algis Vingrys group 2016

Manchester approach

Emmanouil Tsamis
(Manos)

Program to run on Windows platform

**Better usability**, series of usability trials

Distributed to patients to test
relatives/friends
A big thank you

Robert Harper
Cecilia Fenerty

Career Mentors

Neville Drasdo
Michel Millodot
David McLeod
A big thank you