

Screening for Diabetic Retinopathy in Europe Impact of New Technologies

National Representatives Meeting
EASDec Pre-meeting, Manchester 2016

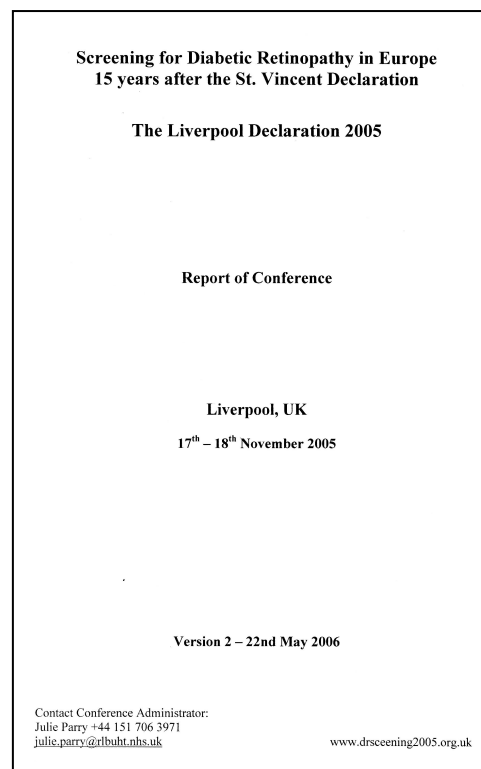
23rd June 2016

The Liverpool Declaration 2005

European countries should:

Reduce the risk of visual impairment due to diabetic retinopathy by 2010 through:

- systematic programmes of screening reaching at least 80% of the population with diabetes
- using trained professionals and personnel
- universal access to laser therapy



Amsterdam 2008



Representatives from 26 European Countries

Significant progress has been made since 2005

Approximately 1/3 of countries report being likely to achieve the 2010 targets

Wide variation in reported prevalence of diabetes

Access to laser remains poor in a few countries

Problems with continued secure funding

Additional barriers :

- public awareness
- patient compliance
- collaboration between ophthalmologists and diabetologists
- lack of engagement of private providers
- political instability





Representatives from 25 European Countries

Barriers to progress and continued implementation:

- involving health insurance companies and private ophthalmologists in primarily health insurance-base systems
- sustainability of funding in the light of increasing prevalence of diabetes



Meeting aims



To report on progress so far

To focus on the impact of new technology

To identify key deliverable actions

Organising committee

Deborah Broadbent (Liverpool), Simon Harding (Liverpool), Yvonne D'Souza (Manchester), Tunde Peto (London).

Delegates

National Representatives from all European Countries, ideally an ophthalmologist and a diabetologist from each, and a limited number of additional expert guests.

Programme



National Abstracts – summary and themes, tips and barriers

Case study from Republic of Ireland – Delivering success in a private public health service - David Keegan, Dublin

Impact of new technologies – facilitated topic discussion

- links to systemic diabetes care – Massimo Porta, Turin
- optical coherence tomography – Jose Cunha-Vaz, Coimbra
- software developments - Sam Philip, Aberdeen
- hardware developments – Dag Fosmark, Oslo

Summary and key messages



Screening for Diabetic Retinopathy in Europe

National Abstracts
Summary

Countries represented - 29



| | |
|----------------|---------------------|
| Albania | Luxembourg |
| Austria | Moldova |
| Belarus | Netherlands |
| Belgium | Northern Ireland |
| Czech Republic | Norway |
| Denmark | Poland |
| England | Portugal |
| Finland | Republic of Ireland |
| France | Romania |
| Georgia | Scotland |
| Germany | Serbia |
| Greece | Spain |
| Hungary | Sweden |
| Italy | Turkey |
| Lithuania | |

Prevalence of diabetes 1- data from 27 countries



| | | | |
|-----------|-------------------|----------------|--------------------|
| Albania | 8.9% (4.9% known) | Luxembourg | 6.8% |
| Austria | 8.3% (6.0% known) | Moldova | 7.7% |
| Belarus | 4.0% | Netherlands | 8.2% |
| Belgium | 8.0% | N Ireland | 4.5% |
| Czech Rep | 8.2% | Norway | 8.5% (4.0% known) |
| Denmark | 5.6% | Poland | 5.2% |
| England | 4.3% | Portugal | 13.1% |
| Finland | 9.3% | Rep of Ireland | 4.4-4.9% |
| France | 5.0% | Romania | 11.6% (8.7% known) |
| Germany | 8.5-9.6% | Scotland | 5.8% |
| Greece | 8-10% | Serbia | 12.4% |
| Hungary | 6.0% | Spain | 13.8% (7.8% known) |
| Italy | 5.0% | Sweden | 3.8% |
| Lithuania | 4.0% | | |

Prevalence of diabetes 2



- Range
 - 4% to 13.8%
 - 3 countries > 10%
 - 10 countries < 6%
- Ascertainment: a number of countries with accurate data from national registers or national surveys but still quite a few with estimates only
- Between a $\frac{1}{4}$ and $\frac{1}{2}$ patients estimated to be undiagnosed
- Interesting to note a 3.8% increase in prevalence in Scotland in the past 12 months



“Any screening is better than no screening!”

Fairly even split between:

- dilated funduscopy by ophthalmologists (especially in countries where there are a large number of ophthalmologists working in private clinics), many to national guidelines
- digital colour fundus photography (serving all or part of the country)

2 countries using dilated funduscopy with the direct ophthalmoscope

Electronic transfer of images in Finland, France, Portugal, Spain and Sweden
Also to various degrees (service, research) in Albania, Hungary, Italy, Lithuania and Norway

Screen interval 1



Fixed intervals

Still many countries implementing annual screening / eye examinations

Italy, Netherlands

- 2 yearly intervals

Stratified screening

England, Scotland and Northern Ireland

- Considering move to stratified screening - 2 yearly screening for a subgroup of patient with no DR on two consecutive screen visits

Finland

- 3 yearly - T2DM and no DR
- 2 yearly - T2DM and mild DR; T1DM and no DR
- 1 yearly - T2DM and mod DR; T1DM and mild DR or stable treated DR

Screen interval 2



Sweden

- 3 yearly - T2DM and no DR
- 2 yearly - T1DM and no DR
- More frequently if DR

Belarus / Czech Republic

- At diagnosis, yearly for no DR, 6 monthly for mild / moderate DR

Individualised screen intervals

Germany

- 2 yearly if no ocular or systemic risks
- Annually if no DR but systemic risk factors (\uparrow HbA1c, \uparrow BP, nephropathy)
- According to ophthalmologist recommendation if DR

Norway, Denmark and parts of Finland (and possibly ROI)

- Risk based screening

Progress towards the 2005 Liverpool Declaration



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- universal access to laser therapy

Systematic screening / 80% coverage



Few countries have systematic screening programmes

Coverage is variable and often there are inequalities in access to eye care in rural and urban areas

Many countries have no national data

Documented coverage ranges from 11% to 100%

In countries with well established systematic screening programmes 70-100% coverage can be achieved

Trained professionals and personnel



In most countries subspecialty training is part of general medical education and CPD

In many countries there are postgraduate courses, training programmes and workshops organised

Specific training, with or without certification, has been set up in Denmark, England, Finland, Hungary, Lithuania, Northern Ireland, Republic of Ireland, Spain and Sweden

Universal access to laser



Virtually all the countries represented have universal access to laser treatment!

Most also have access to anti-VEGF treatment and vitrectomy

In a few countries the laser equipment is only found in the main cities or in private clinics restricting access in rural areas or islands

Albania has tripled the number of lasers since 2015 but has no retinal surgeons and only recent access to anti VEGF

Specific comments 1



Progress is slow but we feel optimistic, 60% target objectives attained

Great progress, especially in communication between diabetologists and ophthalmologists and the use of new technologies

Despite the uncertainty of overall screening coverage we estimate that we meet the requirements from the Liverpool Declaration

We are meeting the requirements set out in the Liverpool Declaration

Much progress has been made with 80% coverage in some areas and improving visual prognosis for patients with diabetes reported

Still no systematic screening or diabetes register but better coverage, beginning of systematic quality assurance and evaluation of epidemiologic data

We manage new diagnostic equipment using trained professionals and personnel

Specific comments 2



Progress has been made towards the Declaration for children, whilst establishing a national programme is a realistic goal for all in the near future

The biggest breakthrough was the introduction of photographic systematic screening

The next 2-3 years will see us well on the way to attaining the objectives

There has been some progress both within the ophthalmological milieu and among health authorities

We are still far from the target to cover 80% population but a growing number are being covered with the help of technology

Progress varies according to region but awareness is increasing nationwide and DR screening is established

The Liverpool Declaration is fulfilled but the future may be challenging!

Top tips for success



- A close and regular co-operation and collaboration between ophthalmologists, diabetologists, general practitioners and patient organisations
- Improve the ascertainment of people with diabetes
- Increase public, patients and specialists understanding of diabetic retinopathy
- Electronic transfer of data
- Build relations with health authorities / lobby / include all stakeholders
- Adequate funding of screening
- Implement locally – evaluate - spread

Top tips for success



- Prepare National Guidelines / integrate guidelines from all specialities
- Implement new technologies
- Ensure access to treatment
- Quality assure
- Communicate, communicate, communicate some more
- Keep the topic in meetings
- Keep on running
- “High quality screening speaks for itself.”

Never give up!