Screening for Diabetic Retinopathy in Europe – Progress Since 2011

Satellite meeting to EASDec, Manchester 2016

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Executive Summary

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Executive Summary

Background

In Liverpool in November 2005 a conference took place to review progress across Europe in the prevention of visual impairment due to diabetic retinopathy since the publication in 1990 of the St. Vincent Declaration. National representatives of diabetology and ophthalmology attended from 29 European countries and reached consensus on the Liverpool Declaration.

The Liverpool Declaration
European countries should reduce the risk of visual impairment due to diabetic retinopathy by 2010 by:

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

Further meetings of European representatives were held to review progress in Amsterdam in 2008, Gdansk in 2011, and Manchester in 2016 as satellites to the annual EASDec conference.

The 2016 meeting reviewed progress in screening and looked at the impact of new technologies. 49 delegates comprising 40 national representatives, 4 organising committee members and 5 expert observers, attended the meeting. Abstracts were submitted from 27 European countries describing progress since 2011 and addressing experiences in engaging with health providers, extended screen intervals, implementation of new technologies, relationships between health professionals involved in the care of people with diabetes and tips for success. Discussions took place with the aim of producing key messages and actions. These are summarised in this report.

Key messages

<u>Access to treatment</u>
Access to treatment remains surprisingly variable in Europe and needs urgent attention. Key factors are the discrepancies between urban/rural and the difficulties in countries with low resources.

<u>Screen intervals</u>
Many countries are still advising annual screening or eye examinations.
Extended intervals are fairly widespread but with significant variation in models including fixed, annually or 2 yearly, and stratified or individualised based on retinopathy level, type of diabetes and / or systemic risk factors.
National representatives supported the move to extended intervals but identified the following concerns:

- in order to implement extended intervals good quality images and high attendance rates are essential;
- in countries where diabetic control is poor, extending the intervals may be unsafe;
- there may be an unintended negative impact of extended intervals on attendance and/or control which requires further research.

<u>Screening in remote areas</u>
Representatives identified that a major barrier to successful implementation is the lack of ophthalmologists in remote and rural settings, both for treatment and for screening, especially in low to middle income countries.
Identifying and targeting poorly served areas requires a major focus.

In poorly resourced settings the following need to be urgently developed:

- approaches to increasing numbers of ophthalmologists in remote areas;
- consideration of incentives, financial and other, for primary and secondary care practitioners;
- new ways of working.

In well-resourced settings resources saved from extending screen intervals should be redeployed to improve access in remote areas.

Service development

It is proposed that a package of tools, based on progress in certain countries, is developed to encourage effective engagement with commissioners and politicians in order to deliver population based screening applicable to all nations. Essential elements are:

- the cost of blindness in the country to the overall economy and society;
- the cost of the service to detect and treat STDR using a trickle down or ingredient approach;
- identification of the cross over point, the year where the cost of screening and treatment + the cost of vision loss passes below the costs without screening.

Ophthalmologists should join with diabetologists in the care of people with diabetes to be part of a “rapid reaction force” i.e. at a time when there is an acute change in control or rapid worsening of complications.

New technologies

Optical coherence tomography (OCT):

- there is no clear definition of screen +ve diabetic maculopathy on OCT;
- OCT should be considered as a technology for secondary identification of diabetic macular oedema (DMO) in screen +ve maculopathy in order to lower false +ve rates;
- visual acuity (VA) remains the primary indicator for treatment of DMO.

Automated grading:

- introduction of automated grading had widespread support;
- support was at present only for disease/no disease grading;
- automated feature specific grading is not yet sufficiently developed.

Hardware:

- developments in portable cameras are worth exploring but are not yet sufficiently well-developed:
- smart phones as cameras have insufficient resolution for screening as yet;
- wide-field imaging can be valuable in populations with a high prevalence of peripheral disease.

Action plan

To support the development of and share best practice in targeted screening
To promote the design of models of screening and treatment appropriate to remote and poorly-funded settings.
To implement new technology within screening programmes, as appropriate.
To continue to promote access to treatment in areas with poor provision.
To mobilise political action on DR, including involving key international organisations

To hold the next meeting in 3 years in an Eastern European country

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