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Certifications for sight impairment due to age related macular degeneration in England

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ABSTRACT

Objectives: To examine variability across England in certification rates for age related macular degeneration (AMD) between 1st April 2011 and 31st March 2012.

Study design: Cross-sectional survey.

Methods: An electronic version of the CVI, the ECVI, was used at the Certifications Office, London, to transfer information from paper based certificates into a database. The electronic certifications data set was queried for all certificates completed in England between April 1st 2011 and March 31st 2012 with the main cause of certifiable visual loss being AMD or with the main cause of certifiable visual loss being multiple pathology but a contributory cause being AMD. Data were explored by type of AMD, visual status, age and sex and then directly standardized rates were computed by English region.

Results: The Certifications Office received 23,616 CVIs for England between April 2011 and March 2012, of which 10,481 (44%) were people certified severely sight-impaired (blind) (SSI) and 12,689 (54%) were certified as sight-impaired (partial sight) (SI). The remainder did not have visual status classified. AMD contributed to 11546 causes of certification on the CVI forms during this period, 53% of forms being for geographic atrophy (GA)/dry AMD which is currently mostly untreatable. The median (interquartile) age at certification for AMD was 86 (81, 90) years and women were more commonly certified than men (66%). Considerable variability was seen across English regions, although there was consistency in that GA was the more common form in all areas.

Conclusions: There is considerable regional variability in CVI rates in England, which are not attributable to differences in age or sex. Reasons for such variability need examination yet this should not undermine the value of these data in terms of describing those newly registered with sight impairment due to AMD who are predominantly female and over 85 years of age.

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Introduction

The number of blind people has been recorded in Britain since 1851, and documentation of the causes of low vision began in 1950.^{1–8} To be registered as sight-impaired in England, an individual must be certified as visually impaired by a consultant ophthalmologist using a Certificate of Vision Impairment (CVI). Individuals may be certified as sight impaired (partially sighted) or severely sight impaired (blind). Certification is not a statutory requirement, but formal recognition of visual impairment is encouraged as it conveys certain benefits for patients and it often acts as a means to access social service provisions.⁹ One copy of the CVI is sent to the patient's local social services department. The social service departments, on receipt of the CVI, contact the individual, offer a needs assessment and if consent is given, add the patient to their local register for sight impairment. Another copy of the CVI is sent to the Certifications Office in London for anonymised epidemiological analysis and figures are then passed to Public Health England (PHE) for inclusion within the Public Health Outcomes Framework as the preventable sight loss indicator (4.12) which has four sub-indicators:

- i) New sight loss certifications due to AMD 65+, per 100,000 population;
- ii) New sight loss certifications due to glaucoma 40+, per 100,000 population;
- iii) New sight loss certifications due to diabetic eye disease 12+, per 100,000 population;
- iv) New sight loss certifications, per 100,000 population.

Whilst PHE reports on the number of CVIs due to AMD, it is important to note that there are two main forms of this eye condition with currently very different outlooks for patients. In August 2008, the National Institute of Health and Clinical Excellence (NICE) approved a new therapy for the treatment of neovascular/wet AMD (nAMD). Given by intravitreal injection to the affected eye, results from phase III trials on ranibizumab reported between 30 and 40% of patients gaining three lines or more of visual acuity with over 90% of patients remaining stable with less than three lines of vision loss over two years of treatment.^{10,11} In July 2013, a second treatment, aflibercept, was approved by NICE.¹² As of now, there are no treatments licensed for the other main form of AMD, geographic atrophy/dry AMD (GA), although supportive measures such as access to low vision device, dietary advice and smoking cessation are provided. In general GA affects vision in a gradual fashion whereas untreated, wet AMD can cause rapid and precipitous visual loss.

This paper explores sight-impairment certifications for AMD in England and provides detailed figures of the numbers of people certified with different types of AMD by visual status, age and sex made between April 1st 2011 and March 31st 2012. Directly standardized rates are then computed by English region.

Methods

An electronic version of the CVI, the ECVI, was used at the Certifications Office, Moorfields Eye Hospital, to transfer

information from the paper based forms into a database. Part C of the CVI form collects information on the cause of visual loss, presenting a list of common diagnoses and instructs the person completing the form to select the main cause of vision loss in each eye using an asterisk or a circle. Guidelines are provided in the 'explanatory notes for consultant ophthalmologists' as to how to select a single main cause of visual loss where this is not evident. There is no legal definition for sight impairment but guidance is provided within the explanatory notes as to what levels of vision constitute sight impairment or severe sight impairment.

The electronic certifications data set was queried for all certificates meeting the following criteria:

- 1) completed in England between April 1st 2011 and March 31st 2012;
- 2) with the main cause of certifiable visual loss being AMD or with the main cause of certifiable visual loss being multiple pathology but a contributory cause being AMD.

Multiple pathology features where the consultant ophthalmologist who completed the CVI has not indicated a single cause of visual loss – this may be where there are differing causes in the two eyes or more than one cause within one eye and the ophthalmologist is unable to decide which contributes most to the certifiable visual loss.

Using methods described previously,¹³ subjects were classified as having:

1. Geographic AMD (GA);
2. Neovascular AMD (nAMD);
3. Mixed AMD;
4. AMD not otherwise specified;

These classifications were then cross tabulated against each of:

- 1) Visual status: severe sight impairment, sight impairment or not recorded;
- 2) Sex: male, female, not recorded;
- 3) Quinary age group (between 70 and 95 years of age).

For examination by English region, category 4 was omitted due to small numbers. Directly age-sex standardized rates were then computed applying the 2013 European Standard Population. 95% confidence intervals were calculated using the Dobson and Byar's methods described elsewhere.¹⁴

Results

The Certifications Office received 23,616 CVIs between April 2011 and March 2012 of which 10,481 (44%) were people registered severely sight-impaired (SSI) and 12,689 (54%) were certified as sight-impaired (SI). The remaining forms did not state the certification status. AMD contributed to 11,546 cases of sight-impairment registration on the CVI forms during this period, 53% of which was GA.

Table 1 shows that there were more AMD CVIs for sight impairment (SI) than for (SSI) severe sight impairment (6526

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