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## Introduction

- Visual impairment (VI) occurs to 70% of patients following stroke. Stroke may result in defects such as visual field loss, ocular motor defects due to muscle and/or nerve damage which may in turn cause diplopia, and visual neglect (lack of awareness of one side of the body or space).
- Rowe (2010) found that 45% of stroke services across the UK did not provide any formal vision screening for their patients.
- There is currently no information available regarding the current provision for vision screening services across Wales.
- Therefore the aim of this pilot study was to assess the vision screening (VS) services available for stroke patients in Wales. This information is essential if services to detect VI and to provide appropriate treatment/rehabilitation to maximise quality of life are to be improved.

## Method

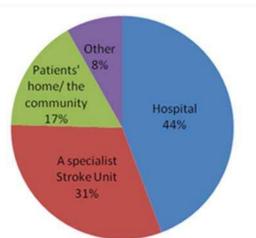
- A survey was set up using the Bristol Online Survey tool and a link was sent for circulation to members of: Welsh Stroke Special Interest Group, Welsh Stroke Nurse Forum, Welsh Stroke Association for Stroke Physicians, Occupational Therapists, British and Irish Orthoptist Society, Welsh Stroke Alliance and Stroke Association Wales.
- An interview with the Stroke Lead Executive was also requested to discuss the VS in their Health Board (HB).

## Results

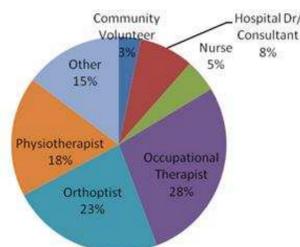
- Sixty-one survey responses were received, which included all the HBs except one (Fig 1).
- The majority of respondents worked in hospital (44.4%) or in a specialist Stroke Unit (31.1%) with the remaining working in the community (24.5%) (Fig 2 & Table 1).
- The role of the respondents is shown in Figure 3.



**Figure 1.**  
A map showing the distribution of the Health Boards in Wales.



**Figure 2.**  
Distribution of respondents' main location where their involvement with stroke patients occurs.



**Figure 3.**  
Distribution of roles held by the survey respondents. ('other' category includes Speech & Language Therapists, Podiatrists, Relatives of Stroke Sufferers and Re-enablement Team Workers).

Role	Total Number of Respondents	Number of Respondents Involved in VS
Community Volunteer	2	1
Healthcare Worker	0	0
Hospital Dr/ Consultant	5	5
Hospital Optometrist	0	0
Nurse	3	1
Occupational Therapist	17	17
Orthoptist	14	10
Physiotherapist	11	5
Other	9	2
Total all Roles	61	41

**Table 1.**  
The number of survey respondents for each role and the number of those involved in screening for vision problems.

Defect Screened	Overall Responses (%)
Cognitive impairment	24.63
Mobility difficulties	24.63
Speech problems	13.43
Vision problems	30.60
None of the above	6.72
Other	0.00

**Table 2.**  
The percentage of respondents involved in screening for cognitive impairment, mobility difficulties, speech problems and vision problems and those not involved with screening for any of these defects. (n=134)

- All HBs aimed to provide some form of VS and the tests included varied across HBs.
- The VS was primarily undertaken by Occupational Therapists (41.5%) and Orthoptists (24.4%) (Table 1).
- Respondents were involved in screening for cognitive impairment, mobility difficulties, and vision problems (Table 2).
- The tests included in the VS varied (Table 3). One HB assessed visual fields whilst another used VS assessment forms to ensure that all relevant aspects of vision are assessed.
- 67.2% of respondents received information about the visual status of patients following stroke and 60.7% reported inter-discipline communication was effective.
- The role of Orthoptists in vision assessment & management was not understood by 44.3% of respondents.

Which tests are included in VS?	% of Overall Responses
Unknown	16.6
History & symptoms	10.9
Vision/Visual Acuity (with spectacle correction if worn)	10.9
Vision with pinhole	1.1
Visual field	16.6
Eye movements/ motility	16.6
Visual perception/ inattention	18.9
Other	6.3

**Table 3.**  
Tests included in the vision screening (n= 175).

## Discussion

This pilot study has uncovered existing good practices which could be extended to all HBs.

There were a number of free text comments and suggestions to improve services.

- Introduction of uniform VS protocol to be used across all HBs.
- The use of a 'Stroke Passport' that can be taken with patient from hospital into the community (as used in Cwm Taf HB).
- Database of volunteer Stroke survivors willing to give advice to stroke sufferers.

## References

Rowe F J, (2010) Who sees visual impairment following a stroke. *Strabismus* 18(2): 37-40  
RNIB (2011) *Sight Loss UK*.

## Conclusion

- The current VS provision for stroke patients varies across Wales.
- All HBs who responded provide some form of visual assessment for all stroke patients admitted to their care.
- The majority of screening is carried out by Occupational Therapists and Orthoptists.
- There is variation between HBs both in terms of who is responsible for the VS and what is involved in the VS.

## Acknowledgments

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