

SDSL-SCREEN

Screening for Severe Dual Sensory Loss in Old Age



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Introduction.

A well documented increase in visual and auditory impairment with increasing age (Kline & Scialfa, 1996) should logically lead to an increased prevalence of *severe dual sensory loss* (SDSL) as age increases. It is suggested that as many as 1% of the population over 67 years in Norway will have SDSL to a degree that qualifies for legal rights as deaf-blind (Lyng & Svingen, 2001; Lyng, 2001). The majority of SDSL is found among individuals over 80 years of age. Because age-related loss of vision and hearing are progressive, early identification is important to prevent the profound negative impact on social and practical life as well as on the psychological well being of the individual. Early interventions and functional optimization requires that the state can be identified and that all aspects of the condition can be ruled out.

Identification can be accomplished by a checklist screening methodology, combined with a follow up interview with individuals identified by the checklist. The checklist can easily be administered directly by care staff. The checklist in combination with a follow up interview has a sensitivity of 97% and a specificity of 39% for detecting individuals with severe combined sensory loss. The positive predictive value of the checklist is 74% (Lyng & Svingen, 2003).

Method

The SDSL screening consists of two parts. Part A, the checklist, consists of seven questions for each sense modality. Part B contains two questions about the individual's own assessment of sensory loss.

The checklist is designed to be used directly by care staff with substantial knowledge of the individuals being screened. The statements in the checklist refer to behavior typical for severe hearing or vision loss and to the possession of technical aids.

Part B is used if a minimum of two or more simultaneous checks for both vision and hearing has been obtained for the individual screened.

The results from part A and B determine if the person should be referred to a specialist for further examination.

Scoring

Part A. The number of checkpoints is summarized for each sense modality, thereby obtaining a vision- and hearing impairment score. For those with two checks for both vision and hearing, a composite score is computed by adding the total number of checks made.

Three categories of handicap is checked out; unimodal visual handicap, unimodal hearing handicap and a dual sensory handicap, deaf-blindness.

The number of checkpoints may be used as an indication of the severity of the handicap.

Part B. The individual's own assessment of his or her visual and auditory functions comprises together with part A, the basis for classification and subsequent referral for medical evaluation and rehabilitation. Those who *don't* assess their vision *and* hearing as *good* should be referred for further evaluation.

Part A

Instructions

In long term services for the old

The registration of users is basic to the screening method.

The checklist should be filled in by the person who regularly provides services to the user.

Go through the register, and use the checklist for each user you are responsible for. For each sense modality, put a mark on all of the statements in the checklist that coincide with observed problems. Also fill in if the user is provided with technical aids (even if the individual does not use them).

Information about age, gender and date of registration should also be filled in, as well as the signature of the staff that has made the check.

In residential homes or nursing homes for the old

The registration of users is basic to the screening method

The checklist should be filled in by the person that regularly provides services to the user (primary contact person).

Go through the register, and use the checklist for each user you are responsible for. For each sense modality, put a mark on all of the statements in the checklist that coincide with observed problems. Also fill in if the user is provided with technical aids (even if the individual does not use them).

Fill in information about age, gender and date of registration. The signature of the staff that has made the check is required.

References:

Kline, D. W. and Scialfa, C.T. (1996) Visual and Auditory Aging. Handbook of the Psychology of Aging, Fourth Edition. Academic press 1996.

Lyng, K. (2001) Deafblindness of the future: Acquired and age related. *Deaf-blind International Review*, 27(2):4-8.

Lyng, K. & Svingen, E.M. (2001) Kartlegging av alvorlig kombinert sansetap hos eldre: Evalering av en sjekklisterbasert screeningmetodikk. NOVA Rapport, 09/01.

Lyng, K. & Svingen, E.M. (2003). Identifying severe dual sensory loss in old age with the SDSL-screen. Paper presented at Fifth European Congress of Gerontology, Barcelona, Spain.

Name.

Date of birth:

Place:

Date:

Completed by:

VISION:

- S1 **You are not recognised when you visit unexpectedly**
(problems in recognising faces at a distance, e.g. across the room).
- S2 **He/she has problems reading the newspaper and watching television**
(e.g., sits very close to the screen).
- S3 **He/she needs help to find objects that have been mislaid.**
- S4 **He/she has problems knowing what the time is because he/she cannot see the clock face or watch.**
- S5 **He/she needs a companion or is afraid when moving about out of doors and/or indoors in unfamiliar places** (except when this is due to difficulties in walking or other physical impairment).
- S6 **He/she complains about worsening vision.**
- S7 **He/she has been provided with one or more technical aids to reduced visual function**
(e.g. magnifying glass or other optical devices for reduced visual acuity, extra lighting, white cane, cassette player or similar).

SUM VISION 1 – 6 Number of checks for vision

VSUM (Max 6)

HEARING:

- H1 **He/she does not hear you when you knock on the door or ring the doorbell.**
- H2 **You have to speak very loudly, clearly and/or slowly for him/her to be able to understand what you are saying** (although it is quiet around you).
- H3 **He/she has problems understanding what you are saying when there is noise in the room** (e.g. sound from a radio, vacuum cleaner, traffic etc.).
- H4 **He/she has problems following a conversation when there are several people present.**
- H5 **He/she has problems understanding what is being said on television, on the radio or cassette player** (e.g. sits very close to the source of the sound or/and turns the volume very high).
- H6 **He/she has complained about reduced hearing**
- H7 **He/she has been provided with one or more technical aids to reduced hearing** (e.g. hearing aid, loop-system, speech amplifier, light signal or vibrating device hooked up to the doorbell or alarm clock).

SUM HEARING 1 – 6 Number of checks for hearing **HSUM (Max 6)**

Sum: Total number of checks (VSUM+HSUM) **TSUM (Max 6)**

B1. SUMMARY

Category:

- Unimodal vision loss Yes No
- Unimodal hearing loss Yes No
- Dual sensory loss Yes No

Aids:

- Technical aids for vision Yes No
- Technical aids for hearing Yes No

Requirement for referral:.....

PART B

After completing the checklist, the following questions should be answered by individuals that have one or more checks for *both* vision *and* hearing on the checklist.

B1. PERCEIVED CAPACITY OF VISION AND HEARING

Mark the alternatives that fit.

G1 How do you rate the quality of your vision compared to other persons of your own age?

My vision is good	No risk
My vision is fair	RISK
My vision is poor	RISK
My vision is very poor	RISK

G2 How do you rate the quality of your hearing compared to other persons of your own age?

My hearing is good	No risk
My hearing is fair	RISK
My hearing is poor	RISK
My hearing is very poor	RISK

B2. SUMMARY

When perceived vision *and* hearing is reported *not* to be *good*, the person should be considered at risk and referred for further examination by a specialist (medical doctor and expert, deaf-blind consultant).

Referral to specialist :	Who	Date
Specialist		
Deaf-blind consultant		
Other referrals		

Date:.....

Signature:.....