

Katrien Keppens,
paediatric neurologist

Mieke De Pourcq, early
intervention assistant - orthoptist

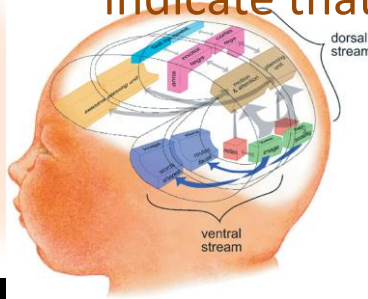
Eliane Bonamie,
coördinator home intervention team
Accent-Spermalie

De Kade, Spermalie
Bruges

katrien.keppens@de-kade.be
mieke.depourcq@mpi-spermalie.be

Rising prevalence of students with CVI in mainstream (secondary) education calls for a different approach

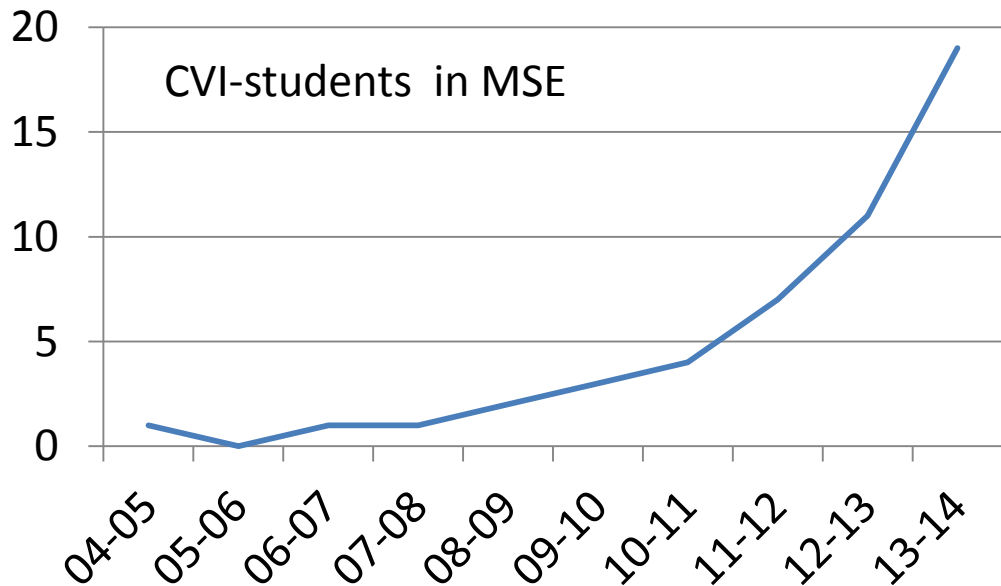
CVI (Cerebral Visual Impairment) is also known as cortical visual impairment, neurological visual impairment and brain-damage-related visual impairment. Prevalence data indicate that CVI now is the leading cause of vision impairment in children.



GN Dutton

(CalaciMarshO&MCVIHandout.doc – Texas School for the Blind and Visually Impaired, 2013)

Students with CVI in mainstream secondary education (MSE) supported by home intervention team Accent-Spermalie and/or the school support team Spermalie.



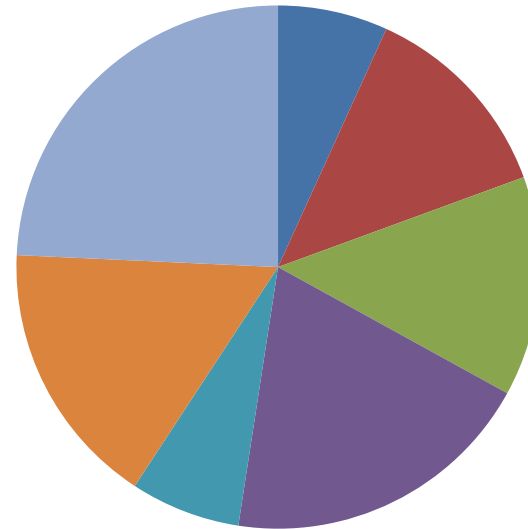
- Better ability of the school support teams in dealing with CVI related problems ensure that **more children remain in mainstream education.**
- Better general awareness for visual dysfunction leads to more referrals to CVI clinics and specialized multidisciplinary research teams .

Prevalence data of the Spermalie Support Region: West(1) and East(2) Flanders (population 2 500 000)

103 outpatients in sec. education supported by Spermalie
(home intervention and/or school support)



Belgium



- blind (7)
- ant segment (13)
- retina (14)
- macula (20)
- optic nerve (7)
- other (17)
- CVI (25)

Multidisciplinary research team Spermalie

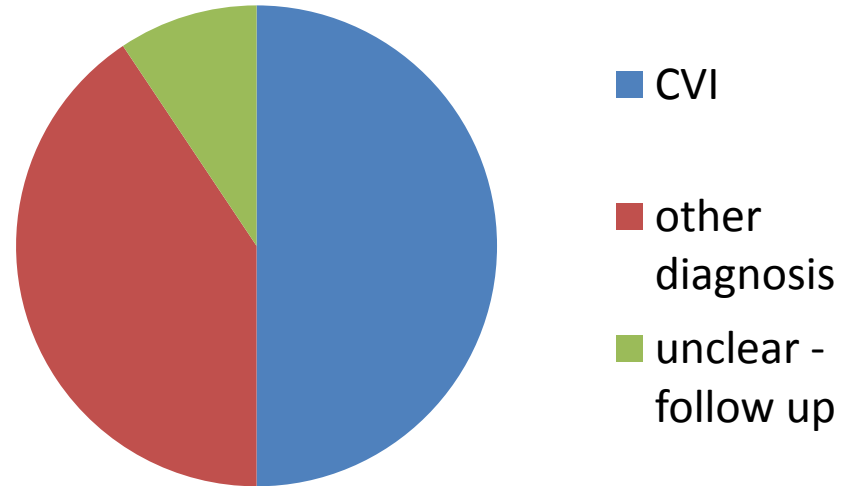
Team:

- Pediatric neurologist (coordinator)
- Ophthalmologist
- Developmental psychologist
- Orthoptist/optometrist
- Low-vision assistant
- Physiotherapist

Aims

- Diagnostic
- Functional and visual profiling
- Advising support teams
- Better understanding the needs of CVI students

Results of 64 CVI-examinations by
MDT Spermalie (2006-2013)



19 CVI-students in MSE 2013-2014, supported by

- School support team Spermalie (13)
- Home intervention team Accent-Spermalie (16)

Typical visual problems

- Vision loss: mild to severe; strong variation, even moment to moment
- Visual processing takes a lot of effort
- Problems with visual search (surroundings, blackboard, tasks, ...)
- Severe problems with orientation and mobility
- Tunnel-vision-like field of view while in stress
(unfamiliar environment, crowded rooms, situations where their functioning is dependent on making sense of a lot of visual 'clutter', ...)
- Difficult interpretation of drawings, depth perception
- Difficult recognition of faces and/or locating friends in a group

New problems for CVI-students in secondary school

- In general: **higher learning pace**
- **Teaching materials:**
 - Different lettertypes and backgrounds in books
 - Unstructured data on blackboard or digital board
 - Maps, tables, graphs, pictures/drawings
 - Lots of visual materials (videos, powerpoint presentations, books, ...)
- **Environment:** noisy classroom, visually noisy environment
- **Mobility:** changing classrooms, bigger schools
- **Social-emotional:** more teachers, changing class groups, peer pressure, self esteem, acceptance of the disability...
- **Critical moments:** start of the school year, exams, excursions, internship, career choice,...
- **Limited knowledge** of CVI by laymen, therefore difficulties in having adjustments accepted by teachers and other pupils
(having trouble reading is accepted as a problem in people with dyslexia but not in people with CVI)

Current aids, support and/or adjustments (19 students)

- a. Custom atlas, maps, drawings, graphs, images (12)
- b. Magnifying copies (4), magnifying lamp (1), conversions of textbooks in large print (1)
- c. Digital textbooks (6), digital files in Word (3), digital files in PDF (9)
- d. Desk with adjustable inclination (1)
- e. Laptop with digital files (9)
- f. Processing software or Text to speech software (7)
- g. White cane (3)
- h. Orientation and mobility training (7)

Current eligibility for help and support

- CVI is recently accepted as condition for granting visual aids and adjustments (a, b, c, d)
- Processing software (f) only is granted when diagnosis of dyslexia
- No funding for laptops and/or scanners
- Diagnosis “mild visual impairment” (7/19) = school support 2 hrs/wk for 2 years in secondary school
- Diagnosis “severe visual impairment” (12/19) = school support 4 hrs/wk each year

Needs and concerns

- Assistance and support should be based on:
 - Individual visual function disorders (ICF / activities and participation)
 - Co morbidity
 - Motor impairment
 - ASS / Autism
 - Dyspraxia
 - Learning disorders
 - ADHD
- Consider multidisciplinary support

Suggestions for better support

- Yearly (but less intensive) **school support** for “mild visual impairment”
- Extensive **mobility training** for all students with CVI
- **Social skills training** & assertivity training
- Introduction of **buddy systems**
- Support during **internship** (e.g. temporary adaptation of the workplace)
- Hiring system for **sporadically needed aids** (e.g. tandem bicycle)
- All **schoolbooks** obtainable in accessible software
- Appropriate education and coaching for **teachers and co-students**

Conclusions

- Students with CVI in main stream secondary schools demand a **different approach and support** compared to children with CVI in primary schools
- More and better support in secondary education offers an **entrance gate** to:
 - Higher education
 - Employment
 - Independence