The blind and low vision child

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Outline

- Introduction
- Ophthalmologist’s role
- Early interventions and pre-school
- Educational interventions
- Paediatric low vision interventions
Introduction

• Impaired vision despite medical treatment and optimal optical correction

• The “four-leaf clover of vision”
  ▪ Communication and interaction
  ▪ Activities of daily life
  ▪ Orientation and moving in space
  ▪ Sustained near vision tasks

• Visual acuity ≠ visual functioning
Ophthalmologist’s role

- Correct diagnosis and optimal treatment
- Refer the child to appropriate intervention / education services
- General assessment:
  - Ocular - vision, VFs, colour vision and contrast
  - Cognitive, motor and hearing dysfunctions
Educational interventions

- **Categories:**
  - The very young
  - Braille readers
  - Children with low vision
  - Children with additional disabilities

- Child needs entire core curriculum and extra curricula activities

- School age: 5-21 years
Early interventional services

- Newborn – 3 years
- Support growth and development by touch, hearing and use of residual vision
- Provided at child’s natural environment- home
Early intervention adaptations

- Reducing visual clutter
- Adjusting home lighting
- Safe environment
- Allowing time to respond to stimuli offered
- Encourage child to reach beyond self, explore and control environment
- Social and emotional development
Pre-school

- 3-5 years
- Individualized educational plan based on diagnosis
- Determine the primary learning modality: visual / tactile
- “head start” model – more concentrated education
- Evaluation for low vision devices
School age

- Benefit of communication
- Individualized, specialized education with curriculum modifications
- Experimental learning, teaching of compensatory skills
- Need to enhance learning environment - integrated
Role of school for the blind

- Highly individualized curriculum
- Enrollment should be time limited
  - 2-3 year period to build blindness skills - braille, orientation & mobility, access technology
  - Short-term programmes for children in integrated schools
  - Outreach to integrated schools for technical support
Training in special skills
Paediatric low vision services

- Assessment at transition times in education system
- Continuous evaluation as environment changes
- Key components:
  - Cycloplegic refraction
  - Low vision devices (optical and non-optical)
Refractive errors

- Individualized approach
- Typical guidelines on spectacles not apply
  - Benefit from lower plus lenses e.g. CVI
  - Bifocals may inhibit ambulation
  - In high myopia; better function and magnification by removing glasses
  - Benefit of contact lenses - wheelchair, swimming
Low vision devices

- Encourage use of residual vision even in braille readers
- Best time to introduce 3-5 years.
- Telescopes, magnifiers especially in reduced contrast
Non optical modifications

- Adaptation of learning environment
- Adaptive software- screen readers, personalized settings, CCTV
- Training on orientation and mobility
Limitations of low vision devices

- Cost
- Stigma
- Inadequate support at school
Summary

- Transdisciplinary approach
- Help each child reach maximal potential
- Visual acuity does not equal to visual functioning
- Each blind and low vision child has a right to education
Thank you