

Communication Needs of Children Affected by Drug Exposure Secondary to Medical Treatment



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Children in the 0 – 5 age range exposed to these risk factors will benefit from early intervention evaluations and monitoring by Pediatricians and Speech Language Pathologists.

Recognizing the risk factors is the first step to addressing the communication needs of these children.

Ototoxic Medications

Ototoxic medications damage the sensory cells in the inner ear, causing temporary or permanent hearing loss. Children are exposed to these medications when the healthcare team has decided that the benefits of the medication are greater than the damaging effects of hearing loss. These medications can save lives, but pose a risk factor for speech and language delays.

Cancer Treatment

Chemotherapy and radiation therapy in children can have long term effects on cognition, including language development. As a result of cancer treatment, children may be at risk for communication delays in pragmatics, language processing, verbal fluency, and reading comprehension. As well as the risk factors associated with ototoxic medications.

Multiple Exposures to Anesthesia

Research suggests that exposure to the chemicals in certain anesthesia two or more times before the age of two is linked with the linked with the increased likelihood that the child will have an IEP plan at school for a speech or language impairment. We have limited information about this risk factor so far.

For more information about ototoxic medications, please visit:

<http://www.asha.org/public/hearing/Ototoxic-Medications/>

Recommendations for children with mild hearing loss being placed in mainstream classrooms:

- (1) Regular audiological monitoring for possible conductive overlays from middle ear effusion and/or progressive sensorineural loss
- (2) Counseling with regard to the avoidance of excessive noise exposure
- (3) Regular monitoring of speech/language skills and therapy when indicated
- (4) Preferential classroom seating
- (5) Consideration of hearing aid placement should be made regardless of age if speech or language skills are not determined to be normal and/or if listening difficulties are exhibited, and
- (6) Trial use of a personal low-gain FM system or placement in an amplified classroom for school-age children who have difficulty listening in the presence of background noise, attending to task, or are exhibiting academic or behavioral problems.

Reference:

Tharpe, A. M., & Bess, F. H. (1991). Identification and management of children with minimal hearing loss. *International journal of pediatric otorhinolaryngology*, 21(1), 41-50.



Communication Needs

Children exposed to ototoxic medications may need hearing aids, and should see an Audiologist regularly for hearing evaluations. These children will also need early intervention strategies to make sure that they are not missing out on language input as a result of hearing impairment. A Speech-Language Pathologist can work with families and preschool teachers to create strategies for language learning based on the child's type and degree of hearing loss. A Speech-Language Pathologist can also work with the child in a therapy setting.

Children exposed to chemotherapy or radiation therapy may need speech or language intervention tailored to meet their cognitive needs. All children exposed to these risk factors will need increased language input because they are missing out on experiences that normally generate communication development while they are hospitalized for treatment.

For more information about side effects of childhood cancer, please visit:

<http://www.cancer.net/all-about-cancer/cancernet-feature-articles/after-treatment-and-survivorship/long-term-side-effects-childhood-cancer-risk-factors>



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