Speech and Language Concerns in Preschool Children

About speech and language concerns in children (drop down box)

• Speech and language delay are the most common presentations seen by paediatricians; 1 in 5 children under 5 have difficulty understanding what is said to them and/or expressing themselves
• Speech and language impairment is as common as childhood obesity
• These conditions are more common in children who:
  o Come from disadvantaged backgrounds
  o Have a family member with language impairment
  o Have other developmental and/or behavioural issue
• Speech and language impairment are associated with
  o Poorer long-term educational, employment and economic outcomes
  o Poorer mental health
  o Antisocial behaviour and criminality
• 50% of preschoolers with speech, language and stuttering problems receive no help
• Speech and language delays may be identified by parents, educators and maternal and child health nurses

Practice Point
Speech disorders are distinct from language disorders though the two frequently occur together
Speech should not be confused with language
Speech is the sound system of language: the physical production of sounds
Language is a meaningful system utilizing words (either spoken or written) and gestures with which we communicate our thoughts and ideas

Red Flags
A loss of previously acquired skills in speech or language (either sudden or progressive) in a child can be due to a serious underlying disorder and requires urgent referral to a paediatrician

Assessment

1. In order to assess whether a child has a speech and/or language delay, consider normal developmental language milestones (link to table of developmental language milestones)
2. Consider the presence of risk factors for speech and language delay (drop down box)
   a. Family history of speech, language or reading problems
   b. Prematurity of birth
   c. Lengthy hospitalisations
   d. Global developmental delay
   e. Hearing impairment
f. Structural abnormalities of mouth and tongue

h. Cognitive deficits

i. Behavioural problems

k. Neglect and/or abuse

l. ADHD and autism spectrum disorders

m. Syndromes such as Down syndrome

3. Take a detailed history. (Note all of these drop down boxes are outlined at the end of this section)
   a. Ask if the child appears to have an articulation disorder, a phonological disorder or symptoms of apraxia
   b. Enquire if there is a problem with fluency or the child’s voice
   c. Ask about difficulties with language and pragmatics
   d. Ask about the child’s hearing
   e. Enquire about behavioural problems and symptoms of global developmental delay
   f. Take a medical history
   g. Consider concerns raised by carers, educators and maternal and child health nurses

4. Clinician concern should be raised if the child has not met certain milestones (drop down box)
   a. Babbling by 12–15 months
   b. Comprehending simple commands by 18 months
   c. Talking by 2 years
   d. Making sentences by 3 years
   e. Telling simple stories by 4-5 years


6. Examine the child, including an observation of the child’s behaviour
   a. Measure height, weight and head circumference
   b. Examine ears, mouth and tongue
   c. Assess for dysmorphic features, neurocutaneous stigmata

7. Some children with speech and language problems have difficulties in other areas of development. Consider a full developmental assessment (link to the Developmental Concerns in Preschoolers pathway)

8. Ask about problems with behaviour

9. All children with speech delay should be referred for audiology, irrespective of how well the child appears to hear when assessed or whether another disability appears to explain the delay

Assessment section drop down boxes:

1 American Family Physician, 1999: “Evaluation and Management of the Child with Speech Delay”
Developmental language milestones link:
To follow

Articulation disorder
• Describes a child's problem in producing a particular sound
• In most cases, no cause is found though anatomical changes like a cleft lip or palate can contribute
• Includes lisps, functional speech disorders and dysarthrias
  Dysarthrias are speech impairments due to neurological problems or conditions affecting the muscles involved in sound production
  Functional speech disorders refer to difficulty in physically producing certain sounds: e.g. problems saying “r”, “l” or “th”

Phonological disorder
• If a child is not able to learn to produce certain sounds, he or she will substitute these sounds for those that are relatively easier to make
  o Eg: banana becomes nana or van becomes ban
• A phonological disorder occurs when this tendency persists beyond the time it is expected a child will learn to make the more difficult sounds
• By the age of 5, most adult sounds have been attained

Apraxia
• Childhood Apraxia of Speech is a disorder of motor planning and execution of speech production. Children are physically capable of producing sounds but lack the ability to coordinate the necessary speech-producing movements. Cognition and language receptive skills are usually normal
• Children with CAS may have little or no expressive speech
• Children often establish a system of non-verbal signs with which to get their needs met

Fluency
• Fluency is the smooth pattern and delivery of speech
• The most common disorder of fluency is stuttering
• Stuttering is thought to be a physiological and not a psychological problem, though it is exacerbated by stress

Voice
• If a child presents with an abnormal sounding voice consider underlying causes such as GORD, vocal cord nodules, structural abnormalities, side effects of medications such as inhaled corticosteroids and neurological problems
• Disorders of the function of muscles involved in sound production can also lead to an either hoarse/high-pitched or weak/breathy voice
Language

- Language is described as “expressive” (how an individual explains, argues, labels, discusses and retells information and ideas) and “receptive” (a person’s understanding of verbal and written language)
- Children with a language disorder may have significant problems with
  - understanding questions and conversations
  - exhibit echolalia (repeating what has just been said)
  - have expressive language lacking in vocabulary and meaningful content
  - use phrases and sentences learned by rote

Pragmatics

- Pragmatics describes the social use of language; greeting, asking, informing, demanding and apologising
- Children with a disorder of pragmatics may appear rude, offensive or inappropriate
- They may have trouble in turn-taking in conversation and in reading the social cues of their listeners

Behavioural problems

- Oppositional behaviour
- Aggression
- Temper tantrums
- Difficulties socialising

Global developmental delay

- If a parent is concerned about a child’s development, it is highly likely that a formal assessment will result in a difficulty being identified
- Use a milestone checklist to assist in this assessment (link to milestone checklist to follow)

Medical History

- History of pregnancy and birth complications
- Maternal use of medications during pregnancy
- Past medical history of the child
- Medications
- Psychosocial history
- Bilingualism

Audiometry

- Children can have their hearing assessed by paediatric audiologists from the age of 4 weeks (4 weeks corrected for premature babies), based upon a child’s developmental age
  - 4 weeks to 6 months: electrophysiological testing while the baby is asleep
- 6 to 10 months: behavioural observation audiometry
- 10 months to 2 and a half years: visual reinforcement audiometry
- 2 to 5 years: play audiometry
- 5 years and over: standard pure-tone audiometry

- Referrals can be made to:
  - RCH
  - List of community paeds-audiology
  - List of private paeds-audiology

Management

1. In children with a suspected global developmental or behavioural problem, see Developmental Concerns in Preschoolers orBehavioural Concerns in Preschoolers (link to pathways)
2. Dispel common myths about speech and language delay (drop down box)
   - Myth: parents should always speak in English with their child with speech and language delay
   - Fact: Parents should speak with their children in the language they are most comfortable and proficient in. Bilingual children may be slow in their speech development at first but will generally catch up
   - Myth: toddlers who are late to start speaking will naturally catch up
   - Fact: toddlers late to start speaking should be offered an assessment as their language delay may herald literacy problems that persist into late childhood and adolescence
   - Myth: children are late to speak because they are lazy or because other members of the family speak for them
   - Fact: it is rare for a child not to speak unless an underlying difficulty exists. It is much easier to speak than to communicate in other ways
   - Myth: providing a child with an augmentative and alternative communication system (AAC) such as signing or use of pictures will preclude them from learning to speak
   - Fact: children increase in their communication and then in their speech by using an AAC
3. All children with speech delay should be referred for audiology PRIOR to seeing a speech pathologist or a paediatrician.
   For children in whom a hearing impairment is diagnosed as the cause of their speech and language delay, see the Hearing Impairment in Children pathway (not yet written)
4. The following children can be observed over ** months
5. The following children should be referred to speech pathology
6. The following children should be referred to a paediatrician
7. The following children should be referred to ENT
8. Consider referral to programs for children with speech and language impairment
   a. Supported play group and other community services
b. Role of M&CH nurses
c. Early intervention centers

Drop down boxes for management section:

Audiology
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- Referrals can be made to:
  - RCH
  - List of community paeds-audiology
  - List of private paeds-audiology

Observed over several months
- ??? Help! Suggestions please

Referred to speech pathology
- Only vowels at age of 18 months
- Leaving off sounds at the beginning or ending of words
- Substituting one sound for another
- Unclear speech at age of 3 and a half
- Children with disordered speech
- Stuttering that frustrates the child, results in bullying, has persisted for longer than 6 months or causes obvious speech interruptions

Referred to a paediatrician AND speech pathologist
- Children likely to have a global developmental delay
- Children likely to have a behavioural disorder
- Children likely to have a mental health disorder

Referred to ENT
- Persistent nasal speech
- Structural abnormalities of the mouth and tongue
- Otitis media with effusion (Glue ear) and hearing deficits lasting longer than 3 months (link to otitis media and glue ear pathway)

Request
1. Request an urgent paediatric assessment if:
   a. A child has a sudden onset loss of speech or hearing?
   b. A child has lost a previously attained skill in speech or language
2. Request a routine paediatric assessment if:
   a. Child is likely to have a behavioural, global developmental or mental health diagnosis
3. Request audiometry for all children with speech delay prior to the child being assessed by a speech pathologist or paediatrician
4. Arrange an urgent or routine ENT referral if:
   a. Delays in language and persistent conductive hearing deficit
   b. Bilateral effusion >3 months or unilateral effusion >6 months
   c. Bilateral conductive hearing loss or sensorineural hearing loss
   d. Apparent major hearing loss
5. Arrange speech pathology assessment and management for
   a. Parental concern about speech and language development
   b. History suggestive of articulation, phonological, fluency or pragmatic development difficulties
   c. Failure to meet expected language developmental milestones
   d. Any “at risk” child with delay in speech and/or language
6. Arrange assessment at Early Childhood Intervention Centre for:
7. Liaise with Maternal and Child Health Nurses for:

Services that need to be mapped

Public and private paediatrics
Public and private paediatric audiology
Public and private paediatric speech pathology
Public and private paediatric ENT
Early childhood intervention centre services
Community programs for speech and language
Maternal and child health services