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STROLLERS VS. MANUAL WHEELCHAIRS

Clinical Indicators

When evaluating a client for a non-powered mobility base, either a stroller or a manual wheelchair may be recommended. So how do you determine which is most appropriate? This article will address some of the clinical indicators for each of these mobility bases. Many funding sources, seeking to save costs, are questioning the medical necessity of manual wheelchairs, as strollers are usually a less costly alternative. As professionals who frequently must write documentation justifying this equipment, it is important to explain why a particular category of mobility base is being recommended.

WHEN IS A MANUAL WHEELCHAIR APPROPRIATE?



THE TILITE TWIST OFFERS AN EXTREMELY LIGHT WEIGHT SELF-PROPULSION OPTION FOR YOUNG CHILDREN

In general, a manual wheelchair is recommended instead of an adaptive stroller for the following reasons:

Frame growth: Manual wheelchairs provide more frame growth than adaptive strollers. For a growing client, this means a manual wheelchair can be used longer than a stroller.

Frame adjustment: Manual wheelchairs provide more frame adjustment. Frame adjustments are an important part of addressing postural needs. For example, many manual wheelchair frames

include an adjustable seat to back angle to achieve the optimal position for trunk and head control. This is often unavailable in an adaptive stroller.

Fixed tilt: Manual wheelchairs can be adjusted so the seat is parallel to the floor or slightly tilted posteriorly. Many adaptive strollers place the client in a significant fixed posterior tilt. A fixed tilt may assist trunk and head control by allowing gravity to do the work. However, clients who spend a great deal of time tilted rearward may lose active head and trunk control, have more limited visual range and may be at increased risk of aspiration.

Seating: Adaptive strollers typically use the same manufacturer's seating options. On the other hand, manual wheelchairs can accommodate a variety of manufacturers' seating systems and components, depending on the client need. Adaptive stroller seating systems are less aggressive and do not offer as much

adjustment as seating systems available for use in a manual wheelchair. In general, adaptive strollers are best used for clients with minimal to moderate positional needs and manual wheelchairs are best used for clients with moderate to maximum positional needs.

Independent propulsion or potential to self-propel: Adaptive strollers are dependent mobility bases. A caregiver is required for propulsion and the client has no ability to move through space. A manual wheelchair can be set-up to be a dependent mobility base (using smaller rear wheels, for example) or a base which provides for self-propulsion. If a client is able to self-propel, even with limited functionality, they can benefit from independent movement through space. Benefits include improved cognition, vision and visual perceptual skills, socialization and participation and reduced learned helplessness. If a client demonstrates potential to self-propel, even with limited functionality, over the expected lifetime of the frame, a manual wheelchair is an appropriate option. If an adaptive stroller is recommended when self-propulsion is anticipated, it may need to be replaced with a manual wheelchair prematurely.

Age appropriateness: Our culture equates a stroller with an infant or young child. Placing a child in an adaptive stroller for several years is not age appropriate for many clients (often a funding source will require that a base is five years old before considering replacement). People interact differently with a child in a stroller, tend to expect less and may not see the child as a capable person.

Haley & Devon

HALEY IS A 3 YEAR OLD GIRL with the diagnosis of spina bifida. She is non-ambulatory and her parents either carry her or place her in a standard toddler stroller. Her therapists are anxious to provide her with more independence in her mobility. Haley tried a manual wheelchair designed for very small children. This unique configuration places the "pushing" wheel in the front for easier propulsion for clients with short arms. She was able to propel this wheelchair base throughout the clinic with good control and was quite motivated to explore her environment. When this manual wheelchair and seating system were submitted for funding, the funding source denied the request, stating a stroller would be more appropriate and less costly. Additional documentation was submitted supporting the importance of independent mobility for cognitive and visual skill development and for building trunk and upper extremity strength. The therapist also pointed out Haley's condition would



SOME ADAPTIVE STROLLERS INCLUDE MODERATE POSTURAL SUPPORT

require lifetime mobility assistance and delaying a manual wheelchair would not eliminate the need. Finally, the therapist also mentioned providing a dependent mobility base to a client who is capable of independent mobility is unethical. Funding for a manual wheelchair was successful.

DEVON IS AN 8 YEAR OLD BOY with the diagnosis of cerebral palsy. He has been using an adaptive stroller since the age of 5, but has outgrown it. His therapists are now recommending a manual wheelchair. Devon does not have the ability to propel a manual wheelchair though he is using a gait trainer in therapy. He will be receiving a power wheelchair in the near future. The recommended manual wheelchair includes a manual tilt and custom seating system to meet his postural needs. The funding source has denied this request, asking why a replacement stroller is not more appropriate. The therapists submitted additional information explaining a manual wheelchair will provide more growth for Devon than a stroller and so will not need

to be replaced as quickly making it more cost effective. A stroller is also not as age appropriate for an 8 year old who would most likely use a new stroller until age 13 if the base provided enough growth. Devon requires a tilt for postural control and fatigue. This is included in many strollers, however, Devon also needs to come forward out of the tilt for functional activities. Many adaptive strollers with tilt would not provide adequate forward tilt position. Finally, Devon requires moderate positional support for orthopedic symmetry (i.e. to prevent his spine from collapsing into a curvature), stability for function and to control muscle tone. The evaluating team believed his positional needs would be better addressed in a custom linear seating system in a manual wheelchair with the needed frame adjustments. Although Devon will be receiving a power wheelchair, this will be used primarily at school and he requires a more supportive seating system than a stroller would provide during those out of school hours. A manual wheelchair was approved.



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WHEN IS A STROLLER APPROPRIATE?



THIS TILT IN SPACE MANUAL WHEELCHAIR CAN COME TO A FULLY UPRIGHT POSITION AND SUPPORT ANY LEVEL OF POSITIONING NEEDS. THIS IS SOMETIMES AN APPROPRIATE OPTION FOR A CHILD WHO IS UNABLE TO SELF-PROPEL.

Adaptive strollers, also referred to as dependent mobility bases, are available for nearly all sized clients. Strollers are available for neonates through adults. Frame adjustments and seating options vary significantly. An adaptive stroller may be recommended instead of a manual wheelchair for the following reasons:

Limited use for seating: A client may not require adaptive seating throughout the day. The client may be able to sit on a couch or floor independently and only require a seating system when in a mobility base or for limited activities.

Limited use for mobility: A client may be independently mobile (ambulatory or using assistance such as a walker) and only require a stroller for long distances and/or when fatigued.

Limited positional needs: A client may have limited positional needs and not require the support provided by a more aggressive seating system or need frame adjustments found on manual wheelchairs.

Small child: Adaptive strollers are available in smaller sizes than manual wheelchairs for very young children, even neonates. A stroller is also more age-appropriate for a young child.

Medical issues: Some adaptive strollers offer a rear facing position which allows a caregiver to monitor a small child who has medical issues. Oxygen and vent support is also an option on some adaptive strollers, as well as on many manual wheelchairs.

Height adjustment: Some adaptive strollers include an integrated or separate base which allows height adjustment so the client can be placed closer to floor level or higher at table height. This is designed so a younger child can be positioned at a peer level for play and at table height for feeding and other activities.

Parental Preference: Some parents prefer an adaptive stroller over a manual wheelchair, particularly for younger children, as it may be more acceptable and less stigmatizing.

As a back-up to a manual wheelchair: Adaptive strollers generally weigh less than manual wheelchairs and often are easier to fold and fold more compactly. As a result, adaptive strollers are usually easier to transport and carry into inaccessible locations. If a family does not have an accessible vehicle or home, a stroller may be a reasonable option. If the client has moderate to maximum positional needs and/or the ability or potential to self-propel, a manual wheelchair may still be needed. This wheelchair may be primarily used in one location, such as the home or at school and the adaptive stroller used for transportation by the family.

Sam & Alexi

SAM IS NOW 6 MONTHS OLD. He received his adaptive stroller upon discharge from the NICU. His adaptive stroller was available in an infant's size and included many features he required. The stroller included tilt and recline which was important as Sam cannot yet sit up and is sometimes tilted or reclined to meet his medical needs. The entire seat can be placed in the rear facing position, so the caregiver can watch him while pushing the stroller to monitor his medical condition. This stroller base can also support Sam's ventilator and oxygen. When at home, the seating system is removed and placed on an indoor hi-low base. Sam is sometimes placed at a lower height so he can participate when his parents are playing with his 3 year old sister on the living room floor. He is placed at the higher position when Mom works on his feeding program at the kitchen table.

ALEXI IS A 16 YEAR OLD young man who is 10 years post TBI. He uses a tilt in space manual wheelchair with a moderately aggressive seating

system. He is not able to push the manual wheelchair and has not been successful in using a power wheelchair, due to cognitive and visual limitations. The home has a ramp so the wheelchair can get in and out of the house. Alexi takes an accessible bus to school. His mom has an accessible van, but prefers to put Alexi in a stroller for quick trips, as it is easier for her to manage this lighter base. She also uses a stroller if the van is unavailable, as she cannot fit the manual wheelchair in her car. The family also travels frequently and prefers to bring the stroller as it folds, is lighter weight and because they are fearful the manual wheelchair will be damaged on an airplane. Alexi is not positioned optimally in the stroller and is stuck in a fixed tilt. For short periods of time, this is not problematic. This therapist would prefer Alexi use his manual wheelchair during quick trips and travel, but I don't have to take care of him 24/7 either. Part of being family centered is meeting the client's needs and respecting family preferences.

PART OF BEING FAMILY CENTERED IS MEETING THE CLIENT'S NEEDS AND RESPECTING FAMILY PREFERENCES.

The above are guidelines; however, a comprehensive evaluation is still required to identify all client needs and to match those needs with the most appropriate equipment options to increase the likelihood of a successful outcome. These guidelines may be helpful, however, in justifying one category of equipment

over another to funding sources. I hope you find this information helpful in your own documentation. ➤

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