Clinicians who use a lifespan approach to the management and treatment of persons with Cerebral Palsy recognize that persons with this disorder may progressively deteriorate over time. (Murphy et. al., 1995; Reimer 2001; Pimm 2002; Bottos et al, 2001). The lifespan approach encourages documentation of problems that are evident in adulthood so clinicians may begin to understand and develop strategies for prevention. Specific knowledge of impairments and disabilities which negatively impact the transition of an infant to a preschooler to a school age child to an adolescent to an adult, will influence the focus of treatment interventions over the entire lifespan. (Mullens, 2004; Bottos et al, 2001)

A person’s disability level could be classified to develop a knowledge base of long term development in persons with cerebral palsy. There are several different mortality rates based on disability level. (Strauss 1998, Murphy et. al., 1995, Williams and Alberman, 1998). People who are severely impaired have a shorter lifespan, but less is known about morbidity as these people may be unable to communicate effectively. Infants and children with more severe impairments are those who are unable to move or feed themselves and will be considered Gross Motor Function Measure Classification system V. (Palisino et. al., 1992) (see appendix A).

The literature appears to be most relevant for persons with Cerebral Palsy in classification systems II, III and IV. These children would be classified as mild and moderate in past terminologies. The children with CP in classification system I have very mild impairments and appear to be less well represented in the literature, since they may not have been included in earlier birth registries, and have a lifespan similar to the typical population (Williams and Alberman, 1998). Children in level II are ambulatory, but may have difficulties with stairs or uneven surfaces; children classified III use assistive devices to ambulate, and may lose mobility skills after age six. Children classified in IV will use powered mobility over distances. (Palisino et. al., 1992).

Using this lifespan approach could have a two fold impact on the understanding of treatment in infancy. First, long term information would be more relevant if based on the classification level of an infant and increase understanding of the lifetime influences of his/her disability. For the child who is classified as severely impaired, V, early classification would encourage a treatment focus on issues which will ensure quality of life, since these people have higher morbidity and mortality. The important issues stressed in the literature are lack of self-feeding, lack of mobility and potential respiratory problems (Williams and Alberman, 1998). Early treatment would focus on successful feeding and be aimed at ‘head vertical/orientation’, rather than place the child in lower positions against gravity such as prone and supine for long periods, which may imbalance the neck musculature toward overextension, and make feeding and vertical orientation more difficult.
Early use of assistive technology would allow this child to experience mobility and decrease contractures and deformities resulting from excess time in supine in the first few years of life. An example of this technology could be the Minibot (ihope.com), an electric scooter that can change from sit to stand for a child as young as one year of age. This would encourage equal time in supported sitting and supported standing, and minimize hip and lower limb contractures while promoting adequate weight bearing time (Mullens, 2004). The upright orientation of the child with CP will also assist chest development, since gravity helps elongate the rib cage, and may possibly help decrease respiratory infections (Massery, 1991).

The child with a moderate impairment level (III and IV), will also need a vertical orientation as an important early focus of treatment for feeding skills, functional communication and to minimize respiratory difficulties. A second goal for groups III and IV, who will find ambulation difficult to learn and sustain through adulthood (Murphy et. al., 1995; Bottos et al, 2001) will be using the hands and arms for function. An understanding of the long term needs of these children while still infants, would shift the focus for families away from ‘ambulation’ at all costs, which may influence overuse syndromes. Methods for the children to actively use lower extremity weight bearing during bench sitting, would prepare for transfer and walking skill, and be a very important part of the therapy program (Mullens, 2004).

Assistive technology, such as the sit to stand electric Minibot (ihope.com) will help these children access their environment earlier. A supported upright trunk orientation could minimize abnormal spine postures which lead to back pain, a common complaint of adults (Schwartz, 1999). A good trunk posture may also help minimize potential bowel and bladder problems, another common area of difficulty in adulthood (Strauss, 1999).

The third category of mild to minimally involved children with cerebral palsy (classification levels II and I) would be those children who are expected to ambulate young and includes most of the children with hemiplegia and many of those with diplegia (Montgomery, 1997). Families can be counseled by research that their child will walk. Families may then agree with therapy focused on first, a ‘head vertical’ orientation for the ability to look as normal as possible and ‘belong’ to their peer group. A second focus will be weight bearing on the arms so functional use of the hands takes top importance, which will also be important for parents (Poginy, 2002). Handwriting and computer use will be important tools for these young people in the quest for employment and assist them to be more successful that the current cohorts (O’Grady, 1995; Dussen, 2001).

Third, a focus on trunk posture in sitting will assist head orientation, reaching and good development of the rib cage for elocution and sound production (Mullens, 2004). Many kids speak too softly because of the lack of expansion of the rib cage and this could affect their place in their peer groups and in the work environment. An excellent postural orientation of head, shoulders and trunk in this category of children may also help minimize back pain from too much movement of mid spinal segments.
that occurs with abnormal trunk stabilization, movement in which the spine has increased movement
instead of the hip joint during ambulation (Sahrmann, 2001).

Finally, clinicians will find that a life span perspective actively involves families in all of the
decision making for treatment plans since ‘therapists come and go, but families are forever.’ (Lenz, K
personal communication). Education of parents, families and each child, regarding the prevention and
minimization of known, long term problems will encourage careful planning. Children with CP should
experience treatment which will improve quality of life through participation across the lifespan (Campbell,
1999).

A case report is included in the course, ‘Support across the lifespan’ as a current example of an
infant with Cerebral Palsy, GMFCS V, severe seizure disorder and cortical blindness, treated since four
months of age with a lifespan approach. A’s mother has been the person who ‘manages’ this child’s typical
day and does all the activities each day at home as part of ‘play stations’. Since A was 8 months of age, this
mom has received in home aid assistance. A is now five, integrated into a typical school, and has two
younger sisters. A’s mom wrote a report to assist the teachers and aids as her daughter went to preschool
for the first time at age 2 years, 9 months (see Appendix B) A. has full range of motion in all positions, but
her program does not include any ‘range of motion exercises’. Since the child’s left hip is beginning to
sublux, the mother recently started mother-child yoga classes in an effort to put more fun stretching time
into their routines at home. Mom’s excellent choice models ‘participation’ for this child.

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