

20th Anniversary Symposium

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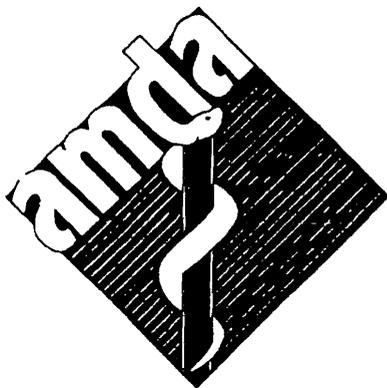
American Medical Directors Association

Poster Session

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Abstracts

**CLINICAL RESEARCH IN PEDIATRIC LONG TERM CARE
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The long term care (LTC) setting provides a unique opportunity for conducting clinical research in pediatrics and child neurology. Several lines of investigation will be discussed.

1. Rett syndrome is a degenerative central nervous system disease which strikes young girls. Based on available literature, it appeared that some Rett syndrome children may have a carnitine metabolism abnormality. One girl in a LTC setting was diagnosed as having this condition and despite having normal serum carnitine levels markedly improved with carnitine supplementation. This result has been published (Southern Medical Journal 86: 1411-1413, 1993) and has recently been confirmed by a child neurologist in Switzerland (Klinische Padiatrie 208: 129-134, 1996).

2. Lethargy is a frequent problem in the pediatric LTC setting. After exhaustive medical testing, five children continued to have unexplained lethargy. All were being treated with anticonvulsants with therapeutic blood levels and all had normal serum carnitine levels. Using an on-off-on-off-on study design, in all cases carnitine supplementation significantly improved their level of alertness. This result has been published (Brain and Development 16:146-149, 1994.)

3. Infections are a major morbidity factor in the pediatric LTC setting. Data was collected over a 5 and 6 year time period in two LTC facilities (resident populations of 49 and 101). The incidence per month per 100 residents of upper respiratory and lower respiratory infections was identical (2.07 and 2.24 for upper respiratory; 4.43 and 4.93 for lower respiratory). However, the standard deviation of the mean in one setting was much larger (5.78 vs. 3.33), indicating a large fluctuation in the monthly incidence of pneumonia. One facility had twice the rate of otitis media (4.39 vs. 2.47) and half the rate of conjunctivitis (2.52 vs. 5.75) when compared to the other. These results have led to much more strict hand washing policy at the facility with the high incidence of conjunctivitis, and a remodeling of the air ventilation system of the facility with the high fluctuation in the rate of pneumonia.