

Preliminary Report from The Research Fund Recipient Exploring Early Use of Noninvasive Ventilation

Noah Lechtzin, MD, MHS, Division of Pulmonary and Critical Care, Johns Hopkins University, received Post-Polio Health International's 2005 grant to study the effects of earlier use of noninvasive ventilation in people with neuromuscular disease, particularly those with amyotrophic lateral sclerosis (ALS).

The study results of the question, "Does earlier use prolong survival?" may be applicable to people with other neuromuscular conditions, including post-polio syndrome and muscular dystrophy.

Noninvasive positive pressure ventilation (NPPV) has been shown to prolong survival when used with advanced respiratory muscle weakness. Experts now recommend NPPV when an individual's forced vital capacity (FVC) is below 50% of predicted, but a study found people who started using NPPV when their FVC was greater than 65% of predicted survived approximately one year longer than those who started NPPV with lower FVCs. This suggests that NPPV use may have effects on the respiratory system beyond simply supporting failed muscles. NPPV may result in benefits by resting fatigued respiratory muscles, improving lung compliance, or reducing the hypercarbia/acidosis which can impair muscle contractility. ▲



Dr. Lechtzin's (nlechtz@jhmi.edu) final report will be released by Post-Polio Health International in mid-2006.

Screening Recommended for Male Polio Survivors

A poster presented during the annual meeting of American Academy for Physical Medicine and Rehabilitation last October in Philadelphia recommends the screening of male polio for bone mineral density (BMD) to prescribe appropriate treatment and to decrease fracture risks.

Julie K. Silver, MD, and Dorothy D. Aiello, PT, Harvard Medical School/Spaulding Rehabilitation Hospital, Boston, tested the hypothesis that male polio survivors are at risk for low bone mineral density. The authors compared polio men who ranged in age from 38-81 to age-matched normative data. The polio men were 12 years old or older when they had polio (85%); currently are ambulatory in the home (75% of the time with or without assistive devices); and currently use some assistive device (82.5%). Some had both hips tested; some just one.

All the hip scores bilaterally for the polio men had a lower BMD than the age-matched data. The lumbar BMD data was within normal limits in the same comparison.

While further research is needed, the authors recommend screening polio men for osteopenia/osteoporosis, because they are at high risks for falls with subsequent fractures. ▲

PHI's Fourth Award:
Wednesday, March 1,
2006 was the deadline
for proposals vying for
\$25,000 to be given in
2007. The recipient will
be announced in the
fall of 2006.