TEXT USED IN MROS DESIGN PAPER

Quality assurance measures were incorporated into the DEXA protocols to optimize longitudinal measurement precision and comparability between DEXA machines at the six clinical sites. Central training of all DEXA technicians occurred before study measurements began. At each clinical site, phantoms were scanned daily to monitor machine performance. In addition, single sets of phantoms were scanned on all machines before the baseline visits to provide the cross-calibration data necessary for multi-site data analyses. The three cross-calibration phantoms used were the Hologic spine, hip, and linearity phantoms. A central quality control lab and standardized procedures for scanning were used to insure reproducibility of measurements. Spine and hip phantom scan results were assessed for longitudinal and cross-sectional quality control. The intra-clinic coefficients of variation (CV) for spine phantoms (0.34% to 0.42%) and hip phantoms (0.37% to 0.58%) were within acceptable limits. The inter-clinic CVs were 0.6% (spine) and 0.9% (hip), and the maximum difference between means was 1.4% (spine) and 2.2% (hip). To adjust for inter-clinic differences, statistical models included indicator variables for the individual scanners.

SUGGESTED TEXT FOR PAPERS USING LONGITUDINAL MEASUREMENTS OF HIP AND SPINE BMD (U.S. SITES)

Bone mineral density was measured at the lumbar spine and proximal femur [EDIT DEPENDING ON OUTCOME USED IN PAPER] using dual energy x-ray absorptiometry (DXA) (Hologic, Inc., MA). A central quality control lab, certification of DXA operators, and standardized procedures for scanning were used to insure reproducibility of DXA measurements. At baseline, a set of spine, hip and linearity phantoms were circulated and measured at the 6 clinical sites. The variability across clinics was within acceptable limits, and cross-calibration correction factors were not required. However, to adjust for inter-clinic differences, statistical models include indicator variables for the individual scanners. Each clinic scanned a spine and hip phantom throughout the study to monitor longitudinal changes, and correction factors for longitudinal changes were applied to participant data as appropriate. The precision of DXA scans of the spine and hip is 1-2% (1).

1. Cummings SR, Bates D, Black DM: Clinical use of bone densitometry: scientific review. *JAMA* 288:1889-1897., 2002

SUGGESTED TEXT FOR PAPERS USING LONGITUDINAL MEASUREMENTS OF WHOLE BODY COMPOSITION (U.S. SITES)

Body composition was measured using dual energy x-ray absorptiometry (DXA) (Hologic, Inc., MA). A central quality control lab, certification of DXA operators, and standardized procedures for scanning were used to insure reproducibility of DXA measurements. At baseline, a Hologic whole body phantom was circulated and measured at the 6 clinical sites. The variability across clinics was within acceptable limits, and cross-calibration correction factors were not required. To adjust for inter-clinic differences, statistical models include indicator variables for the individual scanners. Each clinic scanned a Hologic whole body phantom throughout the study to monitor longitudinal changes, and correction factors were applied to participant data as appropriate.