

## PREFACE to Nomenclature Tables for QCT

- 1) We tried to include variables that could be assessed using either 2D or 3D (ie volumetric) QCT methods
- 2) Variable list is not meant to be exclusive. As new regions and variables are developed, we have tried to set this up so that they can follow the same nomenclature format
- 3) Whenever possible, we tried to conform to the guidelines set out by the ASBMR Histomorphometry Nomenclature Committee (Parfitt et al, JBMR 1987)
- 4) Until standardized, specifics locations for the various measurements will have to be specified in the methods sections of any manuscript

### QCT Variables – SPINE

\* will need to describe which vertebral body(ies) in methodology

Geometry	How measured	Suggested nomenclature
Vertebral ht (average) (mm)		Ht <sub>avg</sub>
Vertebral ht (ant) (mm)		Ht <sub>ant</sub>
Vertebral ht (mid) (mm)		Ht <sub>mid</sub>
Vertebral ht (post) (mm)		Ht <sub>post</sub>
Total vertebral cross-sectional area (avg) (mm <sup>2</sup> )		Ar.Tt <sub>avg</sub>
Total vertebral cross-sectional area (min) (mm <sup>2</sup> )		Ar.Tt <sub>min</sub>
Total vertebral cross-sectional area at mid-vertebral body (mm <sup>2</sup> )		Ar.Tt <sub>mid</sub>
Apparent cortical thickness – middle (mm)		App.Ct.Th <sub>mid</sub>
Apparent cortical thickness – total vertebral body (mm)		App.Ct.Th <sub>Tt</sub>
Endosteal volume, mid vertebral body, 10 mm thick slice (mm <sup>3</sup> )	Elliptical or “pac man” ROI	V.Es <sub>mid10</sub>
Endosteal volume, total vertebral, excluding endplates (mm <sup>3</sup> )		V.Es <sub>Tt</sub>
Cortical volume, mid vertebral body, 10 mm thick slice (mm <sup>3</sup> )		V.Ct <sub>mid10</sub>
Cortical volume, total vertebral, excluding endplates (mm <sup>3</sup> )		V.Ct <sub>Tt</sub>
Total volume, mid vertebral body, 10 mm thick slice, exclude transverse and posterior processes (mm <sup>3</sup> )		V.Tt <sub>mid10</sub>
Total volume, total vertebral, exclude transverse and posterior processes (mm <sup>3</sup> )		V.Tt <sub>Tt</sub>
Endosteal area, mid vertebral body, 10 mm thick slice (mm <sup>2</sup> )	Elliptical or “pac man” ROI	Ar.Es <sub>mid10</sub>
Endosteal area, total vertebral, excluding endplates (mm <sup>2</sup> )		Ar.Es <sub>Tt</sub>
Cortical area, mid vertebral body, 10 mm thick slice (mm <sup>2</sup> )		Ar.Ct <sub>mid10</sub>
Cortical area, total vertebral, excluding endplates (mm <sup>2</sup> )		Ar.Ct <sub>Tt</sub>
Total area, mid vertebral body, 10 mm thick slice, exclude transverse and posterior processes (mm <sup>2</sup> )		Ar.Tt <sub>mid10</sub>

Total area, total vertebral, exclude transverse and posterior processes (mm <sup>2</sup> )		Ar.Tt <sub>Tt</sub>
<b>Density, BMC, Volume</b>	<b>How measured</b>	<b>Suggested nomenclature</b>
Trabecular density, mid vertebral body, 10 mm thick slice (mg/cm <sup>3</sup> )	Elliptical ROI or “pac man” ROI	vBMD.Tb <sub>mid10</sub>
Trabecular density, total vertebral, excluding endplates (mg/cm <sup>3</sup> )		vBMD.Tb <sub>Tt</sub>
Cortical density, mid vertebral body, 10 mm thick slice (mg/cm <sup>3</sup> )		vBMD.Ct <sub>mid10</sub>
Cortical density, total vertebral, excluding endplates (mg/cm <sup>3</sup> )		vBMD.Ct <sub>Tt</sub>
Integral density, mid vertebral body, 10 mm thick slice, exclude transverse and posterior processes (mg/cm <sup>3</sup> )		vBMD.int <sub>mid10</sub>
Integral density, total vertebral, exclude transverse and posterior processes (mg/cm <sup>3</sup> )		vBMD.int <sub>Tt</sub>
Trabecular BMC, mid vertebral body, 10 mm thick slice (g)	Elliptical ROI or “pac man” ROI	vBMC.Tb <sub>mid10</sub>
Trabecular BMC, total vertebral, excluding endplates (g)		vBMC.Tb <sub>Tt</sub>
Cortical BMC, mid vertebral body, 10 mm thick slice (g)		vBMC.Ct <sub>mid10</sub>
Cortical BMC, total vertebral, excluding endplates (g)		vBMC.Ct <sub>Tt</sub>
Integral BMC, mid vertebral body, 10 mm thick slice, exclude transverse and posterior processes (g)		vBMC.int <sub>mid10</sub>
Integral BMC, total vertebral, exclude transverse and posterior processes (g)		vBMC.int <sub>Tt</sub>
<b>DXA-like variables</b>	<b>How measured</b>	<b>Suggested nomenclature</b>
PA-BMD: BMC of vertebral body and posterior process divided by frontal projected area of vertebral body (g/cm <sup>2</sup> )		PA.aBMD <sub>der</sub>
Lat-BMD: BMC of vertebral body divided by lateral projected area (g/cm <sup>2</sup> )		Lat.aBMD <sub>der</sub>