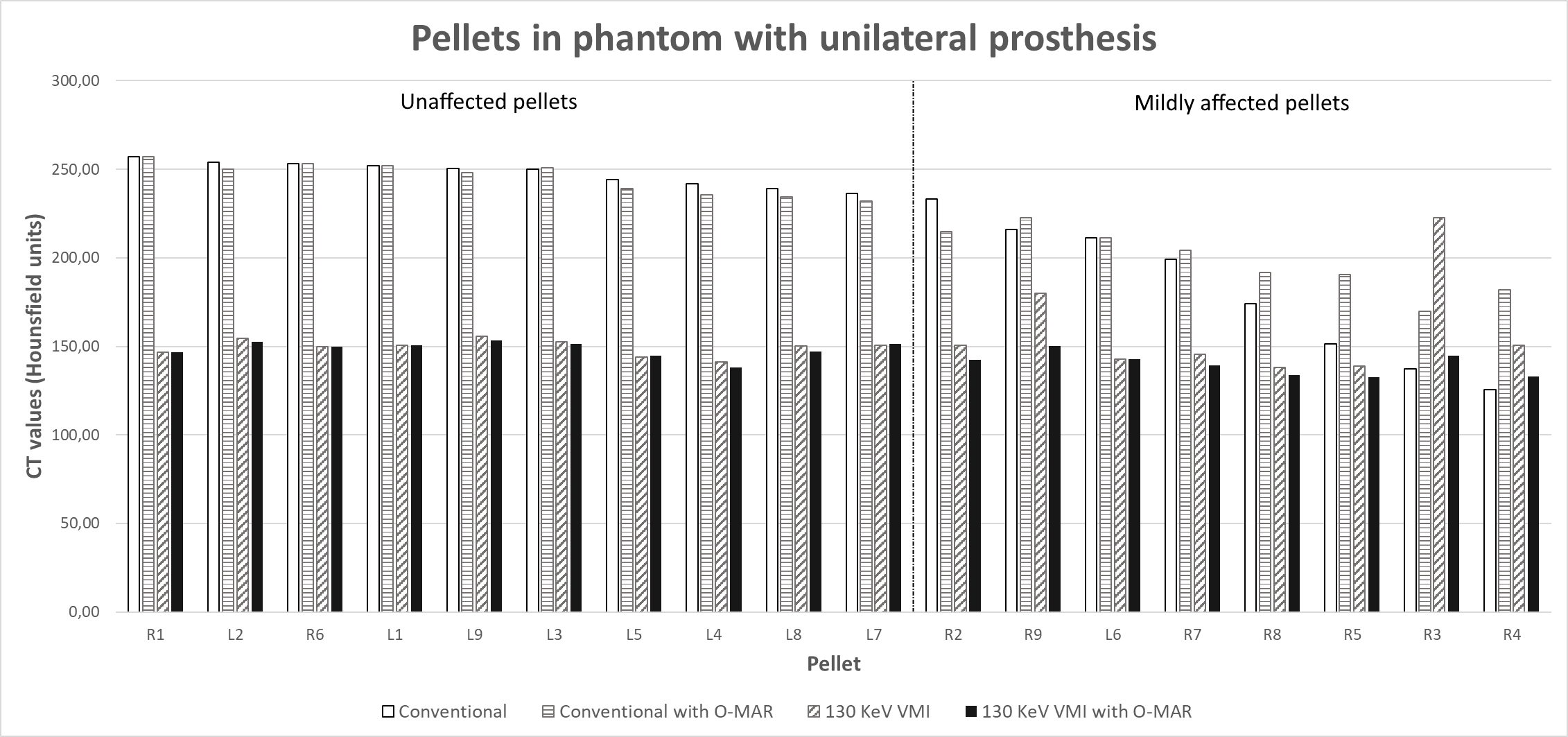
**ELECTRONIC SUPPLEMENTARY MATERIAL**



**Supplementary materials 1:** CT values in Hounsfield units of all pellets in the phantom with unilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the right.

Chart, bar chart

Description automatically generated

**Supplementary materials 2:** CNR of all pellets in the phantom with unilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the right.

Chart, bar chart

Description automatically generated**Supplementary materials 3:** SNR of all pellets in the phantom with unilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the right.

Diagram, bar chart

Description automatically generated with medium confidence

**Supplementary materials 4:** Noise of all pellets in the phantom with unilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the right.

Chart

Description automatically generated with medium confidence**Supplementary materials 5:** CT values in Hounsfield units of all pellets in the phantom with bilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the middle, and severely affected pellets at the right.

A picture containing diagram

Description automatically generated

**Supplementary materials 6:** CNR of all pellets in the phantom with bilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the middle, and severely affected pellets at the right.

A picture containing chart

Description automatically generated

**Supplementary materials 7:** SNR of all pellets in the phantom with bilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the middle, and severely affected pellets at the right.

Chart

Description automatically generated

**Supplementary materials 8:** Noise of all pellets in the phantom with bilateral prosthesis. Unaffected pellets at the left, mildly affected pellets at the middle, and severely affected pellets at the right.