

## **Supplementary Material**

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Table i. Odds ratios of the patient- and injury-related variables.

Variables*	Odds ratio	95% CI (2.5% to 97.5%)
Sex	4.71	1.31 to 16.90
Age	1.01	0.95 to 1.07
Aget	0.97	0.90 to 1.03
Smoking	0.95	0.51 to 1.76
DM	2.46	0.96 to 6.34
BMI	1.23	0.91 to 1.66
BMI†	0.91	0.67 to 1.23
Periprosthetic fracture	1.41	0.51 to 3.86
Open/closed fracture	2.33	0.48 to 11.25
Trauma energy	1.47	3.86 to 8.24
Fracture zone length	1.01	1.00 to 1.02
Segmental comminution	0.49	0.15 to 1.65
Medial fracture comminution	2.30	0.76 to 6.94

CI, confidence interval.

Table ii. Odds ratios of the treatment-related variables.

Variables*	Odds ratio	95% CI (2.5% to 97.5%)
Plate length	1.01	1.00 to 1.02
Empty holes adjacent to the fracture site	1.00	0.73 to 1.38
Plate span ratio	0.74	0.47 to 1.16
Proximal fixation mode 1 (reference)		
Proximal fixation mode 2	1.39	0.59 to 3.28
Proximal fixation mode 3	2.18	0.20 to 23.28
Proximal fixation mode 4	0.49	0.06 to 4.06
Proximal cortices	0.75	0.29 to 1.92
Locking screws in the fracture segment	0.98	0.71 to 1.34

CI, confidence interval.

<sup>\*</sup>The details of the patient- and injury-related variables are explained in the Methods section of the main text.

<sup>†</sup>Age and BMI were transformed with restricted cubic splines using 3 knots.

<sup>\*</sup>The details of treatment-related variables are shown in Figure 1 in the main text.