Supplementary Table 1 Survival of patients with multiple myeloma

| Median Survival, m (95% CI) | PFS | P | OS | P |
|---|---|---|---|---|
| Age ≤65 (n = 156) | 32.0 (23.7–40.3) | 0.249 | NR | 0.011 |
| ＞65 (n = 102) | 21.2 (12.7–29.7) | | 45.4 (33.9–56.9) | |
| D-S 1-3A (n = 215) | 40.4 (25.8–38.2) | 0.023 | NR | <0.001 |
| 2B+3B (n = 43) | 17.7 (15.1–20.4) | | 33.4 (21.3–45.4) | |
| ISS 1+2 (n = 165) | 32.0 (27.8–36.1) | 0.252 | NR | <0.001 |
| 3 (n = 93) | 19.1 (10.0–28.3) | | 36.2 (27.2–45.2) | |
| Hgb ＜100 g/L (n = 150) | 29.6 (20.4–38.7) | 0.389 | NR | 0.192 |
| ≥100 g/L (n = 108) | 33.3 (21.0–45.6) | | 52.4 | |
| Plt ＜150 × 10e9/L (n = 164) | 21.8 (11.8–31.7) | 0.006 | NR | <0.001 |
| ≥150 × 10e9/L (n = 92) | 33.3 (21.1–45.5) | | 45.8 (29.0–62.6) | |
| Cr ≤177 umol/L (n = 220) | 30.8 (23.2–38.4) | 0.078 | NR | 0.001 |
| ＞177 umol/L (n = 38) | 18.6 (13.9–23.3) | | 39.2 (28.2–50.2) | |
| LDH ≤ UNL (n = 209) | 33.3 (24.5–42.2) | <0.001 | NR | <0.001 |
| ＞UNL (n = 49) | 16.6 (11.9–21.3) | | 33.4 (23.0–43.8) | |
| Plasma cells ≤30% (n = 149) | 34.4 (20.9–48.0) | <0.001 | NR | 0.003 |
| ＞30% (n = 109) | 18.2 (12.0–24.4) | | 45.4 (35.5–55.3) | |
| Extramedullary lesion negative (n = 194) | 30.4 (23.2–37.7) | 0.174 | NR | 0.464 |
| positive (n = 64) | 21.8 (5.4–38.1) | | NR | |
| Ca ≤ UNL (n = 215) | 30.8 (23.4–38.2) | 0.346 | NR | 0.616 |
| ＞UNL (n = 43) | 23.9 (11.1–36.7) | | NR | |
| CRP ≤ UNL (n = 191) | 30.8 (23.1–38.5) | 0.125 | NR | 0.022 |
| ＞UNL (n = 67) | 22.7 (9.0–36.4) | | 45.8 (31.3–60.2) | |
| Alb ≥ UNL (n = 179) | 30.8 (22.7–38.9) | 0.382 | NR | 0.142 |
| ＜ UNL (n = 79) | 24.5 (10.6–38.4) | | 39.1 | |
| β2 MG ≤ 5.5 (n = 167) | 32.0 (27.6–36.3) | 0.250 | NR | <0.001 |
| ＞ 5.5 (n = 91) | 19.3 (10.7–28.0) | | 38.6 (24.2–52.9) | |
| 1q gain negative (n = 131) | 41.1 (28.6–53.6) | 0.002 | NR | 0.048 |
| positive (n = 127) | 22.2 (15.8–28.5) | | 47.4 (34.7–59.5) | |
| FISH negative (n = 82) | 45.7 (27.6–63.8) | 0.002 | NR | 0.081 |
| 1q gain (n = 34) | 29.6 (11.9–47.3) | | 45.4 (34.2–56.6) | |
| Others (n = 49) | 29.2 (17.6–40.7) | | 48.2(NE) | |
| 1q+others (n = 93) | 19.3 (15.3–23.3) | | 47.1(NE) | |
| LDH and 1q | | <0.001 | | 0.001 |
| no LHD and 1q abnormal (n = 111) | 42.8 (30.0–55.6) | | NR | |
| LDH or 1q abnormal (n = 118) | 22.5 (18.0–27.1) | | 47.1 | |
| LDH and 1q abnormal (n = 29) | 15.0 (10.8–19.1) | | 31.1 (20.1–42.0) | |

UNL: Upper normal limit

Supplementary Table 2 Univariable and multivariable analysis for progression-free survival

| Univariable analysis | | | Multivariable analysis | | |
|---|---|---|---|---|---|
| Variable | HR (95% CI) | P | Variable | HR (95% CI) | P |
| Age ≥65 y | 1.24 (0.86–1.77) | 0.250 | Plt ＜150 × 10e9/L | 1.47 (1.02–2.13) | 0.038 |
| D-S 1–3A vs. 2B+3B | 1.67 (1.07–2.62) | 0.024 | Plasma cells ＞30% | 1.96 (1.36–2.80) | ＜0.001 |
| ISS 1+2 vs. 3 | 1.24 (0.86–1.81) | 0.253 | LDH and 1q | | |
| Hgb ＜100 g/L | 1.18 (0.81–1.70) | 0.390 | no LHD and 1q abnormal | 1 | ＜0.001 |
| Plt ＜150 × 10e9/L | 1.66 (1.16–2.38) | 0.006 | LDH or 1q abnormal | 1.82 (1.22–2.72) | 0.004 |
| Cr ＞177 umol/L | 1.55 (0.95–2.54) | 0.081 | LDH and 1q abnormal | 3.22 (1.87–5.52) | ＜0.001 |
| LDH ＞UNL | 2.44 (1.63–3.65) | ＜0.001 | | | |
| Plasma cells ＞30% | 2.05 (1.43–2.93) | ＜0.001 | | | |
| Extramedullary lesions | 1.31 (0.89–1.93) | 0.174 | | | |
| Ca ＞UNL | 1.24 (0.80–1.92) | 0.346 | | | |
| CRP ＞UNL | 1.35 (0.92–1.99) | 0.125 | | | |
| Alb ＜35 g/L | 1.19 (0.81–1.74) | 0.381 | | | |
| β2MG ＞5.5 g/L | 1.25 (0.86–1.81) | 0.250 | | | |
| 1q gain positive | 1.83 (1.24–2.71) | 0.002 | | | |
| FISH negative | 1 | 0.003 | | | |
| 1q gain | 1.80 (0.98–3.31) | 0.058 | | | |
| Others | 1.90 (1.10–3.28) | 0.022 | | | |
| 1q+others | 2.42 (1.53–3.85) | ＜0.001 | | | |
| LDH and 1q | | | | | |
| no LHD and 1q abnormal | 1 | ＜0.001 | | | |
| LDH or 1q abnormal | 1.94 (1.30–2.90) | 0.001 | | | |
| LDH and 1q abnormal | 3.37 (1.97–5.76) | ＜0.001 | | | |

UNL: Upper normal limit

Supplementary Table 3 Univariable and multivariable analysis for overall survival

| Univariable analysis | | | Multivariable analysis | | |
|---|---|---|---|---|---|
| Variable | HR (95% CI) | P | Variable | HR (95% CI) | P |
| Age ≥65 y | 1.88 (1.15–3.07) | 0.011 | D-S 2B+3B vs. 1-3A | 1.92 (1.03–3.60) | 0.041 |
| D-S 2B+3B vs. 1-3A | 3.01 (1.75–5.19) | <0.001 | ISS 3 vs 1+2 | 1.80 (1.03–3.17) | 0.041 |
| ISS 3 vs 1+2 | 2.76 (1.68–4.51) | <0.001 | Plt ＜150 × 10e9/L | 2.09 (1.26–3.47) | 0.004 |
| Hgb ＜100 g/L | 1.43 (0.83–2.45) | 0.194 | LDH and 1q | | |
| Plt ＜150 × 10e9/L | 2.37 (1.45–3.87) | 0.001 | no LHD and 1q abnormal | 1 | 0.042 |
| Cr ＞177 umol/L | 2.65 (1.48–4.76) | 0.001 | LDH or 1q abnormal | 1.84 (1.02–3.34) | 0.045 |
| LDH ＞ UNL | 2.60 (1.54–4.39) | <0.001 | LDH and 1q abnormal | 2.37 (1.15–4.90) | 0.019 |
| Plasma cells ＞30% | 2.09 (1.27–3.43) | 0.004 | | | |
| Extramedullary lesions | 1.23 (0.71-2.14) | 0.465 | | | |
| Ca ＞ UNL | 1.17 (0.64–2.15) | 0.616 | | | |
| Alb ＜35 g/L | 1.46 (0.88–2.42) | 0.142 | | | |
| β2MG ＞5.5 g/L | 2.52 (1.54–4.12) | <0.001 | | | |
| 1q gain positive | 1.66 (1.00–2.74) | 0.048 | | | |
| FISH negative | 1 | 0.092 | | | |
| 1q gain | 1.81 (0.77–4.27) | 0.173 | | | |
| Others | 1.94 (0.90–4.18) | 0.093 | | | |
| 1q+others | 2.34 (1.21–4.53) | 0.012 | | | |
| LDH and 1q | | | | | |
| no LHD and 1q abnormal | 1 | 0.002 | | | |
| LDH or 1q abnormal | 1.83 (1.03–3.25) | 0.041 | | | |
| LDH and 1q abnormal | 3.48 (1.74–6.98) | ＜0.001 | | | |

UNL: Upper normal limit