**Table 1**. Baseline characteristics. Summary of baseline characteristics in the retrospective cohort 1 and the prospective cohort 2

| | **Retrospective Cohort 1** | **Prospective Cohort 2** | **p-value** |
|---|---|---|---|
| | n = 1658 | n = 381 | |
| **median age at first diagnosis** | 67 (18-99) | 64 (23-88) | 0.015 |
| **gender** | n / % | n / % | |
| male | 1015 / 61.2 | 233 / 61.2 | 1.000 |
| female | 642 / 38.7 | 148 / 38.8 | |
| **WHO 2016 subtype** | n = 1653 | n = 381 | |
| MDS SLD | 93 / 5.6 | 9 / 2.4 | |
| MDS RS SLD | 67 / 4.0 | 15 / 3.9 | |
| MDS MLD | 457 / 27.6 | 105 / 27.6 | |
| MDS RS MLD | 110 / 6.6 | 31 / 8.1 | |
| MDS EB 1 | 203 / 12.2 | 40 / 10.5 | |
| MDS EB 2 | 254 / 15.3 | 53 / 13.9 | 0.306 |
| MDS del(5q) | 100 / 6.0 | 17 / 4.5 | |
| CMML | 164 / 9.9 | 43 / 11.3 | |
| sAML | 149 / 9.0 | 16 / 4.2 | |
| MDS U | 18 / 1.1 | 27 / 7.1 | |
| RARS-T | 11 / 0.7 | 6 / 1.6 | |
| MDS-NOS | 0 / 0 | 19 / 4.9 | |
| **IPSS risk group** | n = 1658 | n = 218 | |
| low risk | 395 / 23.8 | 121 / 35.9 | |
| intermediate risk I | 659 / 39.7 | 107 / 31.7 | 0.001 |
| intermediate risk II | 369 / 22.3 | 71 / 21.1 | |
| high risk | 235 / 14.2 | 38 / 11.3 | |
| primary MDS | 1366 / 82.4 | 247 / 73.1 | <0.0005 |
| therapy-related MDS | 171 / 10.3 | 101 / 26.9 | |
| **MDS CI** | n =1015 | n = 347 | |
| Low risk | 445 / 43.8 | 179 / 51.6 | |
| Intermediate risk | 447 / 44.1 | 128 / 36.9 | 0.125 |
| High risk | 123 / 12.1 | 40 / 11.5 | |

**Table 2.** Baseline characteristics in the prospective cohort 2

| | Adherent pts | Non-adherent pts | p-value |
|---|---|---|---|
| | n=257 | n=103 | |
| | n / % | n / % | |
| **Median age at diagnosis** | 65 (23-88) | 62 (31-82) | 0.016 |
| **gender** | | | 0.177 |
| male | 95 / 37.0 | 57 / 55.3 | |
| female | 162 / 63.0 | 46 / 44.7 | |
| **WHO 2016 subtype** | | | 0.333 |
| MDS SLD | 4 / 1.7 | 3 / 2.9 | |
| MDS RS SLD | 12 / 5.0 | 3 / 2.9 | |
| MDS MLD | 73 / 30.2 | 27 / 26.2 | |
| MDS RS MLD | 21 / 8.7 | 9 / 8.7 | |
| MDS EB 1 | 26 / 10.7 | 12 / 11.6 | |
| MDS EB 2 | 36 / 14.9 | 14 / 13.6 | |
| MDS del(5q) | 11 / 4.5 | 6 / 5.8 | |
| CMML | 29 / 12.0 | 12 / 11.8 | |
| sAML | 11 / 4.5 | 4 / 3.9 | |
| MDS U | 16 / 6.6 | 10 / 9.7 | |
| RARS-T | 3 / 1.2 | 3 / 2.9 | |
| **IPSS risk group** | n = 227 | n = 93 | 0.170 |
| low risk | 92 / 40.5 | 26 / 28.0 | |
| intermediate risk I | 66 / 29.1 | 36 / 38.7 | |
| intermedate risk II | 45 / 19.8 | 19 / 20.4 | |
| high risk | 24 / 10.6 | 12 / 12.9 | |
| **MDS CI** | n = 239 | n = 92 | 0.242 |
| low risk | 120 / 50.2 | 50 / 54.3 | |
| intermediate risk | 87 / 36.4 | 35 / 38.0 | |
| high risk | 32 / 13.4 | 7 / 7.6 | |
| **HCT CI** | n = 239 | n = 88 | 0.354 |
| low risk | 80 / 33.5 | 38 / 43.2 | |
| intermediate risk | 63 / 26.4 | 15 / 17.0 | |
| high risk | 96 / 40.1 | 35 / 39.8 | |

**Tables 3, 4, 5, 6, 7.** Baseline characteristics in the retrospective cohort 1 separated by therapeutic category

The group of adherent patients includes guideline-adherent patients as well as patients, who did not receive a certain treatment since they did not prove eligible for it.
The group of non-adherent patients includes patients, who did not receive a therapy they proved eligible for and patients who, despite being eligible, did not receive the respective treatment.

**Table 3.** Baseline characteristics of adherent and non-adherent patients in the therapeutic group of erythropoietin

| Erythropoietin | Adherent pts n = 73 n / % | Non-adherent pts n = 21 n / % | p-value |
|---|---|---|---|
| **gender** | | | 0.363 |
| male | 43 / 58.9 | 10 / 47.6 | |
| female | 30 / 41.1 | 11 / 52.4 | |
| **median age at diagnosis** | 71 (41-87) | 63 (19-78) | 0.002 |
| **IPSS risk group** | | | 0.019 |
| low risk | 28 / 38.4 | 2 / 9.5 | |
| intermediate risk I | 45 / 61.1 | 19 / 90.5 | |
| **WHO 2016 subtype** | n = 70 | n = 21 | 0.470 |
| MDS SLD | 1 / 1.4 | 1 / 4.8 | |
| MDS RS SLD | 8 / 11.4 | 3 / 14.3 | |
| MDS MLD | 33 / 47.1 | 10 / 47.6 | |
| MDS RS MLD | 12 / 17.1 | 1 / 4.8 | |
| MDS EB 1 | 4 / 5.7 | 4 / 19.0 | |
| del 5q | 3 / 4.3 | 2 / 9.5 | |
| CMML | 5 / 7.3 | 0 | |
| RARS-t | 4 / 5.7 | 0 | |
| **MDS CI** | n = 62 | n = 15 | 0.032 |
| low risk | 26 / 41.9 | 9 / 60.0 | |
| intermediate risk | 21 / 33.9 | 6 / 40.0 | |
| high risk | 15 / 24.2 | 0 | |

**Table 4.** Baseline characteristics of adherent and non-adherent patients in the therapeutic group of iron chelation

| Chelation | Adherent pts n = 183 n / % | Non-adherent pts n = 44 n / % | p-value |
|---|---|---|---|
| **gender** | | | 0.029 |
| male | 100 / 54.6 | 32 / 72.7 | |
| female | 83 / 45.4 | 12 / 27.3 | |
| **median age at diagnosis** | 67 (19-91) | 70 (39-89) | 0.108 |
| **IPSS risk group** | | | 0.162 |
| low risk | 73 / 39.4 | 15 / 34.1 | |
| intermediate risk I | 110 / 60.1 | 29 / 65.9 | |
| **WHO 2016 subytpe** | n = 178 | n = 44 | 0.316 |
| MDS SLD | 17 / 9.5 | 3 / 6.8 | |
| MDS RS SLD | 18 / 10.1 | 6 / 13.6 | |
| MDS MLD | 74 / 41.6 | 21 / 47.7 | |
| MDS RS MLD | 18 / 10.1 | 3 / 6.8 | |
| MDS EB 1 | 11 / 6.2 | 6 / 13.6 | |
| MDS EB 2 | 2 / 1.1 | 2 / 4.6 | |
| del 5q | 22 / 12.4 | 2 / 4.6 | |
| CMML | 14 / 7.9 | 1 / 2.3 | |
| RARS-t | 2 / 1.1 | 0 | |
| **MDS CI** | n = 128 | n = 32 | 0.030 |
| low risk | 66 / 51.6 | 10 / 31.3 | |
| intermediate risk | 50 / 39.1 | 15 / 46.9 | |
| high risk | 12 / 9.3 | 7 / 21.8 | |

**Table 5.** Baseline characteristics of adherent and non-adherent patients in the therapeutic group of Lenalidomide

| Lenalidomide | Adherent pts n = 27 n / % | Non-adherent pts n = 18 n / % | p-value |
|---|---|---|---|
| **gender** | | | 0.798 |
| male | 8 / 29.6 | 6 / 33.3 | |
| female | 19 / 70.4 | 12 / 66.7 | |
| **median age at diagnosis** | 73 (32-85) | 69 (39-89) | 0.631 |
| **IPSS risk group** | | | 0.420 |
| low risk | 21 / 77.8 | 12 / 66.7 | |
| intermediate risk I | 6 / 22.2 | 6 / 33.3 | |
| **WHO 2016 subtype** | | | |
| del 5q | 27 / 100.0 | 18 / 100.0 | 1.000 |
| **MDS CI** | n = 19 | n = 17 | 0.370 |
| low risk | 13 / 68.4 | 8 / 47.1 | |
| intermediate risk | 5 / 26.3 | 8 / 47.0 | |
| high risk | 1 / 5.3 | 1 / 5.9 | |

**Table 6.** Baseline characteristics of adherent and non-adherent patients in the therapeutic group of Azacytidin

| Azacytidin | Adherent pts n = 70 n / % | Non-adherent pts n = 102 n / % | p-value |
|---|---|---|---|
| **gender** | | | 0.173 |
| male | 49 / 70.0 | 61 / 59.8 | |
| female | 21 / 30.0 | 41 / 40.2 | |
| **median age at diagnosis** | 69 (20-89) | 65 (21-87) | |
| **IPSS risk group** | | | 0.008 |
| intermediate risk II | 55 / 78.5 | 67 / 65.7 | |
| high risk | 15 / 21.1 | 35 / 34.3 | |
| **WHO 2016 subtype** | n = 66 | n = 100 | 0.012 |
| MDS SLD | 2 / 3.0 | 1 / 1.0 | |
| MDS RS SLD | 1 / 1.4 | 0 | |
| MDS MLD | 15 / 22.7 | 12 / 12.0 | |
| MDS RS MLD | 2 / 3.0 | 4 / 4.0 | |
| MDS EB 1 | 16 / 24.2 | 14 / 14.0 | |
| MDS EB 2 | 22 / 33.3 | 45 / 45.0 | |
| CMML | 3 / 4.6 | 7 / 7.0 | |
| MDS U | 2 / 3.0 | 1 / 1.0 | |
| AML | 3 / 4.6 | 16 / 16.0 | |
| **MDS CI** | n = 53 | n = 81 | 0.102 |
| low risk | 18 / 34.0 | 34 / 42.0 | |
| intermediate risk | 21 / 39.6 | 38 / 46.9 | |
| high risk | 14 / 26.4 | 9 / 11.1 | |

**Table 7.** Baseline characteristics of adherent and non-adherent patients in the therapeutic group of allgeneic stem cell transplantation

| alloSCT | adherents pts n = 959 n / % | non-adherent pts n = 388 n / % | p-value |
|---|---|---|---|
| **gender** | | | 0.542 |
| male | 571 / 59.5 | 238 / 61.3 | |
| female | 388 / 40.5 | 150 / 38.7 | |
| **median age at diagnosis** | 70 (18-91) | 61 (18-73) | <0.005 |
| **IPSS risk group** | n = 959 | n = 388 | <0.005 |
| low risk | 308 / 32.1 | 13 / 3.4 | |
| intermediate risk I | 398 / 41.5 | 116 / 29.9 | |
| intermediate risk II | 150 / 15.6 | 151 / 38.9 | |
| high risk | 103 / 10.8 | 108 / 27.8 | |
| **WHO 2016 subtype** | n = 949 | n = 387 | <0.005 |
| MDS SLD | 74 / 7.8 | 10 / 2.6 | |
| MDS RS SLD | 58 / 6.1 | 0 | |
| MDS MLD | 343 / 36.1 | 70 / 18.1 | |

| | | | |
|---|---|---|---|
| MDS RS MLD | 88 / 9.3 | 16 / 4.1 | |
| MDS EB 1 | 85 / 9.0 | 100 / 25.8 | |
| MDS EB 2 | 124 / 13.1 | 106 / 27.4 | |
| del 5q | 92 / 9.7 | 5 / 1.3 | |
| AML | 62 / 6.5 | 79 / 20.4 | |
| MDS U | 15 / 1.6 | 0 | |
| RARS-t | 8 / 0.8 | 1 / 0.3 | |
| **MDS CI** | n = 630 | n = 211 | 0.015 |
| low risk | 268 / 42.5 | 104 / 49.3 | |
| intermediate risk | 291 / 46.2 | 88 / 41.7 | |
| high risk | 71 / 11.3 | 19 / 9.0 | |