**Supplementary Table 1. Five-Year Overall Survival by Age Group**

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| Primary Diagnosis | **Overall Survival**a | **95% Confidence Interval** | **p-values** | **Rationale** |
| Acute Lymphoblastic Leukemia | | | | |
| 1-9 year-olds | 89.1% | 86.7-91.5% | <0.0001 | With the substantial survival differences between 1-9 and 10-14 year-olds (likely due to disease biology) with acute lymphoblastic leukemia (ALL), and the NCI’s designation of ALL patients >10yo as High Risk, we excluded the 1-9 year-olds and retained patients 10 and older in the regression analysis; thus 10-14 year-olds served as the referent group of “children” for ALL. Due to survival differences between 22-29 year-olds and 30-39 year-olds with ALL, we split the 22-39 year-olds into 22-29 and 30-39-year-olds for ALL. Thus, the referent group was 10-14 year-olds, and the AYA group was divided into 15-21, 22-29 and 30-39 year-olds. |
| 10-14 year-olds | 72.3% | 65.6-79% |
| 15-21 year-olds | 55.7% | 47.7-63.7% |
| 22-29 year-olds | 41.5% | 30.7-52.3% |
| 30-39 year-olds | 35.4% | 25.8-45.0% |
| Acute Myeloid Leukemia | | | | |
| 1-9 year-olds | 66.2% | 55.3-77.1% | 0.07 | Given the absence of a substantial survival differences between 1-9 year-olds and 10-14 year-olds; in addition, there is no age component to risk-based stratification in AML as there is in ALL. Thus, we retained patients >1 in the regression analysis; to this end, 1-14 year-olds served as the referent group for “children”. Similarly, with no substantial survival differences between 22-29 and 30-39 year-olds, these “older AYAs” were grouped together. Thus the AYA group was divided into 15-21 year-olds and 22-39 year-olds. |
| 10-14 year-olds | 59.1% | 45.4-72.8% |
| 15-21 year-olds | 48.9% | 37.9-59.9% |
| 22-29 year-olds | 51.1% | 40.1-62.1% |
| 30-39 year-olds | 47.5% | 39.6-55.4% |

aKaplan-Meier survival analysis