# SIOG 2017 - Abstract Submission

*Track 2: Haem malignancies in the elderly and basic science*

*MDS, AML*

O05

## SURVIVAL OF AML PATIENTS AGED 70 AND OLDER. MODELING FROM DATA OBTAINED IN MORE THAN 13000 PATIENTS

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**Please indicate how you prefer to present your work if it is accepted:** Oral or Poster Presentation

**I submit my abstract to be considered for the following award:** None

**Introduction:** Little is known about the prognosis and response to treatment of patients aged 70+ with AML, as well as the impact of cytogenetics, performance status (PS), and comorbidity.

**Objectives:** Obtain systematic data to support clinical decision modeling for older AML patients.

**Methods:** We conducted a systematic review of clinical trials enrolling patients 70 and older with AML and extracted subgroup data, either from published data, or by queries to the investigators. Treatment was categorized into 4 categories: intensive chemotherapy, low-dose chemotherapy, hypomethylating agents (HMA), and best supportive care (BSC). Data were collected on cytogenetics (favorable, intermediate, poor), ECOG PS (0-1 vs 2+), and comorbidity (Charlson 0 vs 1+).

**Results:** We obtained data from 13416 patients. The median age was 75 years. Time points for survival reporting varied from study to study, and aggregate findings are presented in the table below. Patient treated with hypomethylating agents had the best prognosis. Patients treated with intensive chemotherapy and HMAs had a better survival than those treated with BSC or low-dose chemotherapy. Out of 65 studies, 29 reported data on cytogenetics, 31 on ECOG PS, and 4 on comorbidity. The impact of cytogenetics and ECOG PS on OS is significant, while the impact of comorbidity is more difficult to assess based on the small numbers assessed. For example, for patients treated with intensive chemotherapy, the 1-year survival of patients with good-intermediate cytogenetics is 38% vs 18% with poor cytogenetics; 38% with ECOG PS 0-1, vs 27% with ECOG PS 2 or more.

| | **OS** | | | |
|---|---|---|---|---|
| | 1y | 2y | 3y | 5y |
| **Intensive chemo** | 0.34 (0.26-0.42) | 0.19(0.15-0.23) | 0.12(0.08-0.16) | 0.11(0.09-0.14) |
| **Low-dose chemo** | 0.11 (0.06-0.18) | 0.12(0.05-0.21) | 0.08(0.05-0.12) | No data |
| **HMA** | 0.45 (0.35-0.55) | 0.17(0.10-0.26) | 0.09 (0.06-0.13) | 0.05(0.02-0.12) |
| **BSC** | 0.17 (0.14-0.19) | 0.06(0.02-0.11) | 0.04(0.02-0.06) | 0.02(0.00-0.06) |

**Conclusion:** This to our knowledge the largest data set on AML patients aged 70 and older. Active treatment with HMAs or intensive chemotherapy is associated with better survival in these patients. Cytogenetics and ECOG PS significantly influence the results. Data are being integrated in a decision model to allow personalized treatment discussions with patients.

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