(16.5%). sMT occurred in 16.5% of the entire cohort and 17.2% among those with ELN favorable risk. Patients with sMT have a significantly lower rates of relapse freedom after CR/CRi (26.3% *vs* 52.1%, p=0.047). Numerically, higher rates of relapse after CR/CRi (47.4% *vs* 34.4%, p=0.301) and higher rates of never achieving CR/CRi (26.3% *vs* 13.5%, p=0.175). Among favorable risk, OS was 14.7 months for sMT vs not reached for those without sMT (p<0.001). Univariate analysis showed sMT and allogeneic HCT significantly impacted OS. Multivariate regression using covariates including age, AML type, mutation burden, sMT, and HCT confirmed their survival prognostic significance (sMT: HR 5.12, 95% CI: 1.72-15.22, p=0.003; HCT: HR 0.26, 95% CI: 0.09-0.76, p=0.014). **Conclusions:** Our findings suggest *NPM1* mutated AML patients with sMT have significantly worse prognosis despite being classified as favorable risk by ELN 2017 at diagnosis. This may have treatment implications in the need for and/or timing of HCT. Further studies and larger datasets are needed to confirm these observations. **Keywords:** acute myeloid leukemia, AML, NPM1, favorable risk AML, secondary AML mutations

## AML-410

### Efficacy of Hyperbaric Oxygen Therapy in Hematologic Malignancy Patients: A Single Comprehensive Cancer Center Retrospective Review of 50 Patients

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**Introduction:** Hyperbaric oxygen therapy (HBO) is approved for difficult-to-treat tissue injury. It also been used as a second-line treatment for refractory infection in hematologic malignancies. However, data on the efficacy of HBO in such population are limited. Here, we reviewed our single-center experience of HBO used in patients with hematologic malignancies. **Methods:** We identified patients undergoing HBO treatment by insurance authorization data between December 2012 and October 2019 at MD Anderson Cancer Center. Patients with a diagnosis of hematologic malignancies with or without history of stem-cell transplant were included. Clinical and demographic data were collected by retrospective chart review. **Results:** A total of 50 patients were included: 26 (52%) patients had Acute Myeloid Leukemia, 31 (62%) patients had received an SCT, and 34 (68%) patients had active disease, of whom 28 (56%) had relapsed/refractory disease. The most common infections were: 19 (38%) BK cystitis and 17 (34%) fungal sinusitis. Median number of HBO sessions was 5 (range 1–60), and median HBO duration was 17 days (range 0–109). All patients received initial HBO in the hospital; 25 (50%) patients were discharged from hospital at either completion of HBO or after transition to outpatient treatment. Sixteen (32%) patients were discharged to hospice, and 8 (16%) patients died during the hospitalization. Ninety-day and 1-year mortality were high at 52% and 78%, respectively. Median survival was 3.1 months. Patients with BK cystitis were less likely to respond to HBO (odds ratio 0.16, p=.004). Eight patients had response to HBO and achieved remission of infection at last follow-up. These patients had a higher proportion (50%) of underlying disease in remission, compared to 29% in rest of patients (n=42). The treatment indications in the responding group were 2 BK cystitis, 2 fungal sinusitis, 2 cellulitis, and 2 non-BK cystitis. Other patient characteristics were similar to the rest of the patients. Patients with response/infection remission had better survival with HR 0.18 (95% CI .063–.529, p=.002). **Conclusion:** A small subset of patients with hematologic malignancies, 16% in our study, had meaningful recovery from infection after HBO treatment. In our experience, patients whose underlying malignancy was in remission and patients with non-BK infection had better outcomes. Additional studies are needed to better identify the population who would benefit from HBO. **Keywords:** AML, hyperbaric oxygen therapy, HBO, acute leukemia, stem-cell transplant, efficacy, infection

## AML-425

### Acute Myeloid Leukemia: A Multicenter Experience in Colombia, on behalf of ACHO's RENEHOC Investigators

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**Objective and Outcomes Measures:** Our aim was to characterize the population of patients diagnosed with AML who were attended in 7 health institutions in Colombia, from 2009 to 2020, included based on RENEHOC (online platform) and PETHEMA (Spanish Program for Hematology Treatments). Kaplan-Meier analysis was used to assess overall survival at 1 year (1-OS) and 5 years (5-OS) of follow-up and relapse-free survival (1-RFS, 5-RFS). **Results:** A total of 289 patients were included; almost half (50.2%) were female, and the median age at diagnosis was 62 years old (14–95). Most patients were ECOG 1 (39.3%) and ECOG 2 (38.8%). The patients (12.5%) presented with secondary AML, and 0.3% had hereditary predisposition syndromes to AML (Down syndrome). Complete remission was achieved in 45.0% of patients, 17.8% absolute resistance, and 13.6% patients died in induction, the