In multivariable analyses, we observed poorer survival for patients ≥ 40 years of age (HR = 1.54, 95% CI = 1.34–1.78), - [Trends in Overall Survival among Patients Treated for Sarcoma at a Large Tertiary Cancer Center between 1986 and 2014 - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9856368/). I selected this paper. But we can decide on the age

As an important part of epidemiology, age of onset plays an important role in the diagnosis and prognosis of patients with STS. - [Frontiers | Pan-Soft Tissue Sarcoma Analysis of the Incidence, Survival, and Metastasis: A Population-Based Study Focusing on Distant Metastasis and Lymph Node Metastasis (frontiersin.org)](https://www.frontiersin.org/journals/oncology/articles/10.3389/fonc.2022.890040/full) – age grouped as below and above 50.

age-related differences in the sarcoma patient journey. – significance of age in sarcoma. They have 3 groups but one group has less data so we can consider it as 2 groups division (18-39), (40-64) and (65+) the last 2 can be put as 1 group. – 1. [The age-related impact of surviving sarcoma on health-related quality of life: data from the SURVSARC study - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7844567/). 2. [Age-related sarcoma patient experience: results from a national survey in England | BMC Cancer | Full Text (biomedcentral.com)](https://bmccancer.biomedcentral.com/articles/10.1186/s12885-018-4866-8#Sec1)

The multivariable analyses showed that the year of diagnosis, age, sex, race, grade, stage, and site were all significant prognostic factors (*P* < 0.001). – Figure 5, age groups (0-60) and 60+. - [Epidemiology of and prognostic factors for patients with sarcomatoid carcinoma: a large population-based study - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7716166/)

Li, J., Ji, Y. Clinicopathological characteristics and genetic features of young and senior Ewing sarcoma patients. *Diagn Pathol* 19, 124 (2024). <https://doi.org/10.1186/s13000-024-01548-4> - The prognosis of the young group was found to be worse compared with the senior group for patients without metastasis at the initial diagnosis. Age 30.

Andrew EC, Lewin J, Desai J, Orme L, Hamilton A, Bae S, Zhu W, Nicolson S, Varghese LN, Mitchell CB, et al. Clinical Impact of Comprehensive Molecular Profiling in Adolescents and Young Adults with Sarcoma. *Journal of Personalized Medicine*. 2024; 14(2):128. <https://doi.org/10.3390/jpm14020128> - The prognosis for AYA with sarcoma is typically inferior to their younger counterparts, and although underlying host and tumour factors likely contribute, this is poorly understood

A variety of cancers prevalent in AYAs have a worse survival than the same cancers in younger or older patients. Those with a worse survival rate than that in both younger and older patients include breast cancer, colorectal cancer, soft-tissue sarcomas, non-Hodgkin lymphomas considered as a group, and leukaemia in aggregate4 - [The distinctive biology of cancer in adolescents and young adults - PubMed (nih.gov)](https://pubmed.ncbi.nlm.nih.gov/18354417/)

Tricoli JV, Blair DG, Anders CK, Bleyer WA, Boardman LA, Khan J, Kummar S, Hayes-Lattin B, Hunger SP, Merchant M, Seibel NL, Thurin M, Willman CL. Biologic and clinical characteristics of adolescent and young adult cancers: Acute lymphoblastic leukemia, colorectal cancer, breast cancer, melanoma, and sarcoma. Cancer. 2016 Apr 1;122(7):1017-28. doi: 10.1002/cncr.29871. Epub 2016 Feb 5. PMID: 26849082; PMCID: PMC4803597. -The prognosis for AYA patients with STS is generally poorer than when the disease is seen in younger patients.

Although ALL and sarcomas are common to children and AYAs, AYAs face inferior survival and have not seen the same survival improvement - Wolfson JA, Kenzik KM, Foxworthy B, et al. Understanding Causes of Inferior Outcomes in Adolescents and Young Adults With Cancer. *J Natl Compr Canc Netw*. 2023;21(8):881-888. doi:10.6004/jnccn.2023.7056.