

No higher risk of acute leukaemia in close relatives

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(Medical Xpress) -- Parents, siblings and children of patients with the most common form of acute leukemia do not run a higher risk of developing the disease as was once believed, according to a new study from the Swedish medical university Karolinska Institutet.

Every year, some 400 people in Sweden are diagnosed with [acute myeloid leukemia](#) (AML), the most common form of [acute leukemia](#). Just like for other forms of the disease, the causes of AML are largely unknown and are probably a combination of hereditary and environmental factors. According to earlier studies, first-degree relatives (parents, siblings and children) of patients with AML run three times the normal risk of developing the disease.

However, a joint study conducted by researchers at Karolinska Institutet and the USA's National Institutes of Health (NIH) has now shown that this is not the case.

The teams studied over 20,000 first-degree relatives of [AML patients](#) and compared the results with over 90,000 relatives of a [control group](#) and found no higher risk for AML or other blood tumour diseases with the exception of polycythemia vera, a disorder leading to the over-production of [red blood cells](#).

"Our results show that close relatives of AML patients can feel reassured that they run no higher risk than normal of developing AML," says Magnus Björkholm, professor at Karolinska Institutet's Department of

Medicine (Solna) and consultant at Karolinska University Hospital.

The researchers also studied relatives of patients with myelodysplastic syndrome (MDS), which can be a precursor of leukaemia. Here too they observed no increase in risk for blood tumour diseases in first-degree relatives.

"In our view, the lack of a familial increase in risk of AML and MDS contrasts sharply with other blood tumour diseases, for which there is often a significant familial connection," says Professor Björkholm.

More information: Familial aggregation of acute myeloid leukemia and myelodysplastic syndromes, *Journal of Clinical Oncology*, published online before print December 12, 2011, [doi: 10.1200/JCO.2011.37.1203](https://doi.org/10.1200/JCO.2011.37.1203)

Provided by Karolinska Institutet

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