

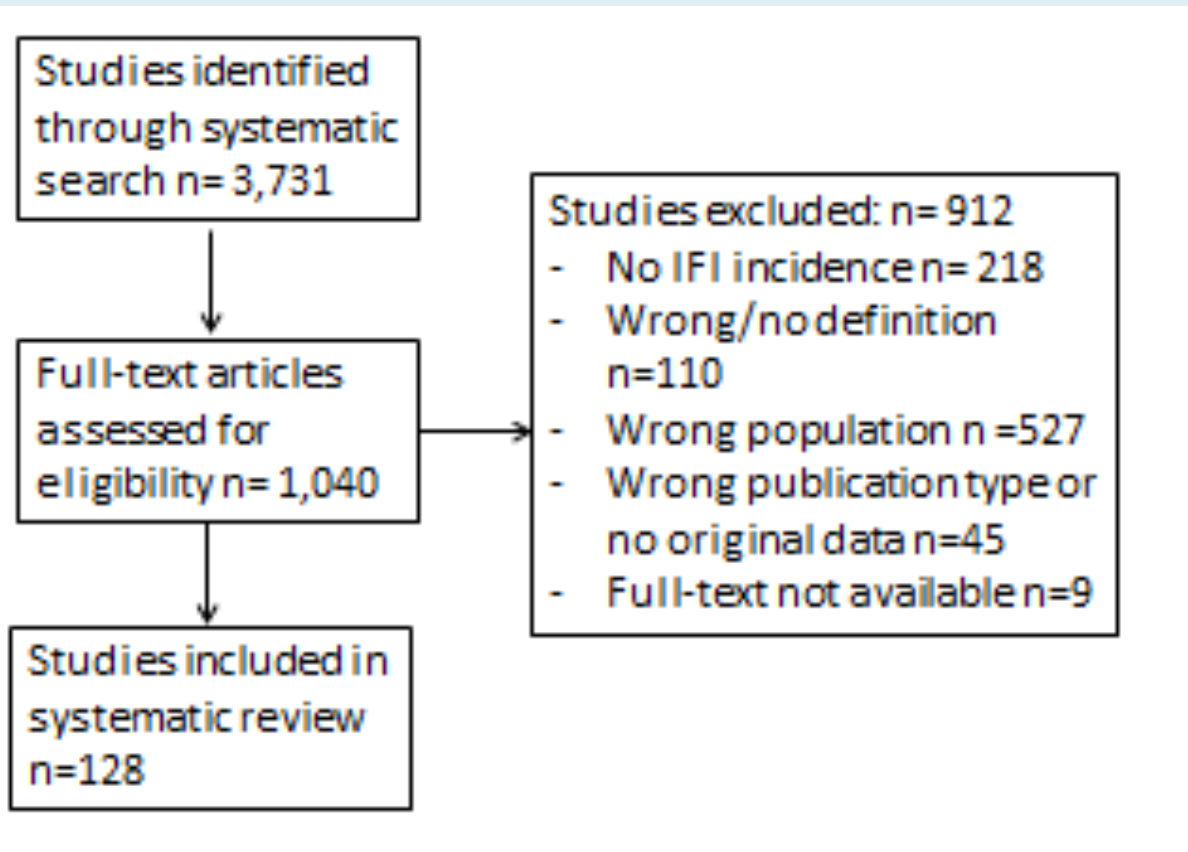
Background

Invasive fungal infections (IFIs) are an important cause of mortality and morbidity in children treated for malignancies. IFI is seen mostly in patients treated for AML, relapsed ALL and patients who underwent HSCT. There is evidence that the worldwide incidence rate is rising. The primary aim of this systematic review is to show the published incidence rate of IFIs in the world. Our hypothesis is that climate plays a major role in the incidence of IFIs.

Methods

We will systematically search Ovid MEDLINE, Embase, CENTRAL, LILACS. Inclusion criteria proven/probable IFI per EORTC criteria, paediatric oncology patients and original studies. We will perform a meta-analysis with a poisson regression model to determine an association between IFI and diagnosis, climate classification, annual rainfall and time period studied.

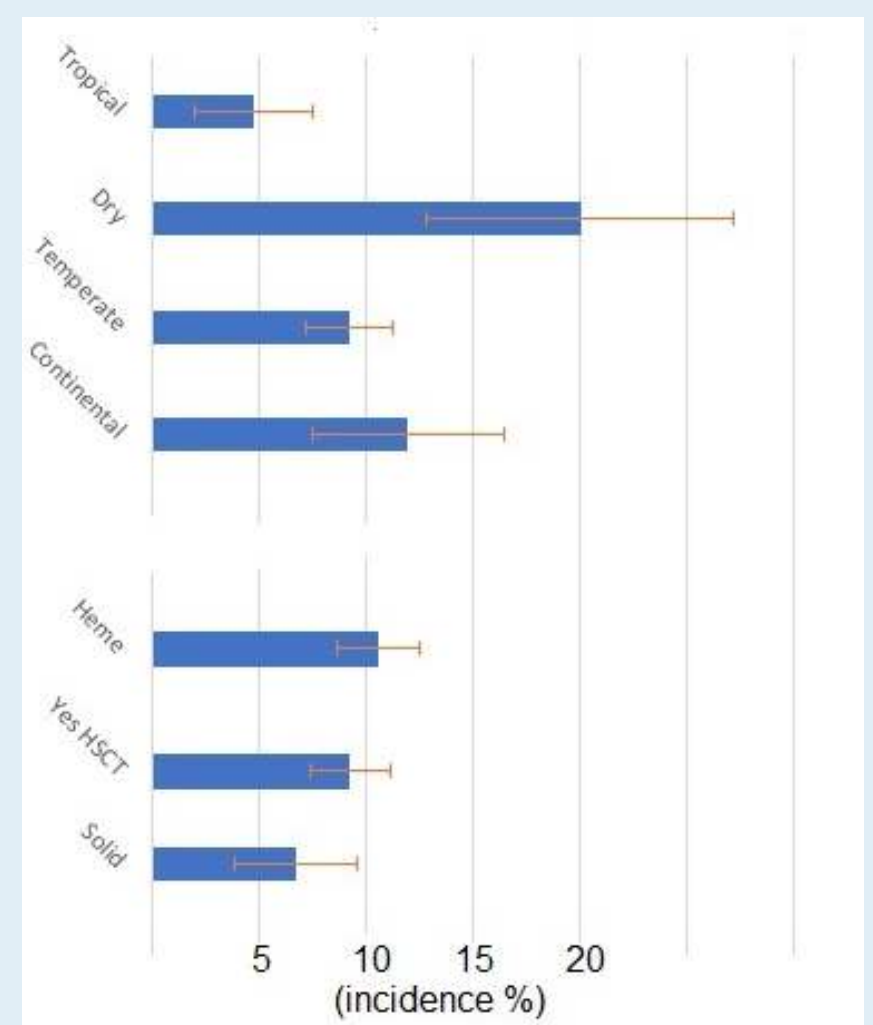
Results - search



Results - incidence

7 studies reported 0 IFI cases. The highest reported incidence was 43.6%.
74% of the studies reported an incidence between 1 - 20%

Results- climate and diagnosis



Conclusion

In this unique systematic review we found evidence of the increasing and wide range of incidence numbers of IFIs in the paediatric oncology patients throughout the years and around the world. We did not find a relation with annual rainfall, however dry countries reported a significant higher incidence. Patients diagnosed with hematologic malignancies and patients who underwent HSCT had a higher IFI incidence compared to patients with solid tumours.