



The British Society for Paediatric and Adolescent Rheumatology

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Cancer and infection risk in patients with juvenile idiopathic arthritis (JIA) treated with anti TNF drugs – information for patients and carers

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Some concerns have been raised over a possible link between the use of anti TNF drugs (etanercept, adalimumab and infliximab) and the development of cancer and infection in children and young people with JIA. BSPAR has considered the reports and makes the following statement.

Some children and young people who received anti TNF drugs have developed severe or life-threatening cancers including lymphoma. However, most of these children and teenagers had autoimmune disorders (conditions in which the immune system attacks a healthy part of the body) that if uncontrolled may have also increased the risk that they would develop cancer. This includes diseases such as Crohn's disease (an autoimmune disease of the bowel) as well as JIA.

We do not yet know if there is an increased risk of children with JIA treated with anti TNF drugs developing cancer compared to children with JIA who have not received anti TNF drugs. Data has been collected on thousands of children on anti-TNF drugs since they were first introduced in the mid-1990s. The data available so far suggests that, if there is any increased risk of developing cancer it is extremely small. We hope that the continuing

accumulation of data collected from national and international registries will help to answer this question more fully in time.

BSPAR recommends that patients and carers discuss any concerns about these potential risks with their rheumatology team prior to commencing anti TNF treatment.

If a patient with JIA receiving anti TNF treatment develops any of these symptoms medical advice must be sought: unexplained weight loss; swollen glands in the neck, underarms, or groin; easy bruising or bleeding; high temperatures lasting more than a few weeks and in the absence of obvious infection; recurrent night sweats.

Treatment with anti TNF drugs may increase the risk of children and young people developing infection from bacteria, viruses, and fungi. In theory such infection may be very serious. Patients and / or their carers should seek medical advice if they have any signs or symptoms of infection. Taking additional immunosuppressant medications in conjunction with anti TNF drugs, such as abatacept, rituximab, tocilizumab, canakinumab, anakinra, azathioprine, cancer chemotherapy medications, cyclophosphamide, cyclosporine, oral corticosteroids, methotrexate, sulfasalazine, and tacrolimus may increase the risk of infection.

If a patient with JIA experiences any of the following symptoms during or shortly after treatment with TNF drugs, medical advice should be sought immediately: weakness; sweating; difficulty breathing; sore throat; cough; fever; extreme tiredness; flu-like symptoms; warm, red, or painful skin; or other signs of infection.

Using anti TNF drugs may increase the risk of developing tuberculosis (TB; a serious lung infection), especially if a patient is already infected with tuberculosis but does not have any symptoms of the disease. Patients or their carers must inform their doctor if they have or have ever had TB, if they have lived in a country where TB is common, or if they have had contact with a patient known to have TB.

Conclusion

Anti-TNF medications are known to increase the risks of infection in patients taking them. It is not known at this time whether or not there is an increased risk of cancer in children and young people with JIA treated with anti-TNF medicines. Evidence currently available suggests that if there is an increased risk it is extremely small. Despite this it is important for

parents and health professionals to remain vigilant for the possibility of complications arising, either as a result of JIA itself or its treatment. Ongoing, long-term data collection from people with JIA taking anti-TNF and related medicines will be vital in determining the precise risks. To this end BSPAR strongly recommends that all children and young people with JIA commencing etanercept are enrolled onto the national BSPAR biologics registry, so that data on the long-term safety of etanercept can be collected and analysed. Patients with JIA taking other biological therapies can be enrolled on the Arthritis Research UK's Biologics for Children with Rheumatic Diseases Study (BCRD). Members of your paediatric rheumatology team will be happy to provide further information about these studies.