

# LONG TERM SAFETY OF BIOLOGICS

## WHAT IS BIOLOGIC THERAPY?

Medications that can be used to treat a variety of rheumatologic diseases: eg rheumatoid arthritis, JIA, PsA, vasculitis

- TNF inhibitors: infliximab (Remicade), etanercept (Enbrel), adalimumab (Humira), golimumab (Simponi), certolizumab (Cimzia)
- T-cell co-stimulator inhibitor: abatacept (Orencia)
- B-cell inhibitor: rituximab (Rituxan)
- IL-6 receptor antibody: tocilizumab (Actemra)
- JAK inhibitor: tofacitinib (Xeljanz)

## WHAT ARE THE MAJOR POTENTIAL ADVERSE EVENTS ASSOCIATED WITH EXTENDED USE OF BIOLOGICS?

### *Injection site reactions/infusion reactions*

- The incidence of infusion reactions generally decreases with time. This is especially true with rituximab.

### *Infections*

- It is known that compared to non-biologic treatments, the use of biologics is associated with a slightly increased risk of infection. The most common infections seen with biologics are upper respiratory, skin and urinary tract infections.
- Risk of serious infection does NOT increase with longer exposure to rituximab.
- The risk of serious infection does increase when glucocorticoids (prednisone) are given along with other common rheumatologic medications.
- The risk for shingles is highest for patients on long-term moderate to high dose prednisone. It is slightly higher for anti-TNFs compared to other biologics and non-biologic DMARDs.
- Progressive Multifocal Leukoencephalopathy has been reported in patients on anti-TNFs and rituximab. While extremely rare, the devastating nature of PML warrants close observation of all patients on these medications.

### *Malignancies*

- Anti-TNFs are associated with a slightly higher rate of localized squamous cell carcinoma (a type of skin cancer). They are not associated with an increase in basal cell carcinoma (another type of skin cancer) or lymphoma (a type of blood cancer).
- Treatment with some biologics AFTER a primary cancer has been associated with increased risk for a second cancer, although this risk was not seen in a study using rituximab after primary lymphoma, solid tumor or skin cancer.