JAK inhibitors

JAK inhibitors are the newest class of drugs used to treat RA. Like biologic drugs, these are ‘targeted’ therapies, which work on the immune response. Unlike the biologics, they can be taken in tablet form as they are small molecule therapies.

<table>
<thead>
<tr>
<th>JAK inhibitor name</th>
<th>Brand name</th>
<th>Method of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tofacitinib</td>
<td>Xeljanz</td>
<td>Tablets</td>
</tr>
<tr>
<td>Baricitinib</td>
<td>Olumiant</td>
<td>Tablets</td>
</tr>
<tr>
<td>Upadacitinib</td>
<td>Rinoq</td>
<td>Tablets</td>
</tr>
<tr>
<td>Filgotinib</td>
<td>Jyseleca</td>
<td>Tablets</td>
</tr>
</tbody>
</table>

Most commonly reported side effects

As with any medication, the JAK inhibitors have a number of possible side effects, although it is important to remember that these are only potential side effects. They may not occur at all.

Common side effects may include:

- infections of nose, throat or the windpipe
- lung infection (pneumonia and bronchitis)
- shingles
- influenza
- urinary bladder infection (cystitis)
- increased liver enzymes or muscle enzymes in the blood (signs of liver or muscle problems)
- high levels of blood fat (cholesterol) shown by a blood test
- Dizziness
- Nausea

More information on side effects can be found in the patient information leaflet for these drugs.

Remember to report any concerns about possible side effects to the doctors and nurses.

JAK inhibitors with other medicines

If you and your consultant decided to stop your current drug and start you on a different drug (either in
the same class or in a different class or with a different target), there will be a period of ‘wash-out’ before starting the new drug to ensure that the previous drug is completely out of your body. This prevents drug interactions. Your healthcare team can advise you of any other known interactions with this drug, so it is important to advise them of any medicines you are taking, whether prescribed or over-the-counter.

JAK inhibitors during pregnancy and breastfeeding

Tofacitinib

The manufacturers recommend that tofacitinib should not be administered to pregnant women and that a gap of at least 4 weeks should be left from the last dose of the drug and trying to conceive. Tofacitinib is not recommended to be taken while breastfeeding. In animal testing, a potential effect on female fertility was identified. Male fertility was not seen to be affected.

Baricitinib

The manufacturers recommend that baricitinib should not be administered to pregnant women and that a gap of at least 1 week should be left from the last dose of the drug and trying to conceive. Baricitinib is not recommended to be taken while breastfeeding, as it is not known whether the drug can pass into the milk. In animal testing, a potential effect on female fertility was identified. Male fertility was not seen to be affected.

Upadacitinib

The manufacturers recommend that upadacitinib should not be administered to pregnant women and that a gap of 4 weeks should be left from the last dose of the drug and trying to conceive. Upadacitinib is not recommended to be taken while breastfeeding. No effects on fertility were noted from animal testing.

Filgotinib

The manufacturers recommend that filgotinib should not be administered to pregnant women or to those breastfeeding and that a gap of at least 1 week should be left from the last dose of the drug and trying to conceive. In animal testing, a potential effect on male fertility was identified, while female fertility was not seen to be affected.

JAK inhibitors and alcohol

The manufacturers of tofacitinib, baricitinib and upadacitinib have not issued any guidance to limit alcohol intake while taking these drugs. However, it is not uncommon for people taking JAK inhibitors to be on other medications as well, where different guidance applies. Methotrexate, for example, can affect the liver, so for those taking methotrexate alongside their biologic, moderate intake of alcohol is recommended in line with government guidelines.

JAK inhibitors and immunisations/ vaccinations
It is recommended that before starting tofacitinib, baricitinib or upadacitinib, patients should be up-to-date with their vaccinations, and that live vaccines should be avoided while on the drug. The manufacturers of these drugs suggest that the exact time period for this should be in accordance with current vaccination guidelines, and your rheumatology team can advise you.

Medicines in rheumatoid arthritis

We believe it is essential that people living with RA understand why certain medicines are used, when they are used and how they work to manage the condition.

Updated: 14/02/2022

This article was downloaded from www.nras.org.uk. National Rheumatoid Arthritis Society (NRAS) is a registered charity in England and Wales (1134859) and Scotland (SC039721). A private company limited by guarantee. Registered in England and Wales (7127101).