DMARDs, Biologics and vaccinations

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Which drugs used to treat rheumatoid arthritis increase the risk of infection?

- Sulfasalazine, gold and hydroxychloroquine do not increase infection
- Cyclophosphamide
- MTX, leflunomide
- MMF /AZT
- TNF-α inhibitors
- Rituximab
- Tocilizumab
- Abatacept etc
Immunisation is an important issue for people with rheumatoid arthritis (RA)

RA patients experience infections more frequently

These infections tend to be more serious.

Abnormal activity of the immune system

Complication of treatment with some of the drugs
Who should not be immunised?

- Avoided during pregnancy
- Previous anaphylactic reaction to a vaccine or one of its components
- Those who have had a confirmed anaphylactic reaction to egg should not receive yellow fever or influenza vaccines
- Patient on immunosuppressive treatment
- Severe latex allergy
- Infection – delay vaccine
Which immunisations should be avoided when taking drugs for rheumatoid arthritis?

- Live vaccines include measles, mumps, rubella, varicella (chicken pox/shingles) and yellow fever.
- BCG is a living, attenuated form of TB and this too should be avoided in people who are immunosuppressed.
- Immunization with live vaccines such as BCG should be delayed until 6 months of age in children born to mothers who received immunosuppressive biological therapy during pregnancy.
How long a gap should there be between starting/stopping a biologic drug and having a vaccine?

- People should not start a biologic drug within one month of being immunised with a live vaccine.

- Give a live vaccine six months after the biologic drug has been stopped.

- Nasal spray flu vaccine is a live vaccine. Not recommended for JIA patients.

- If they are in school, should not have live nasal vaccination but should have injectable flu vaccine 2 weeks prior to the start of whole vaccination programme in their school.

- All RA patients are advised to have flu vaccination about 2 weeks prior to their child going to get the vaccination in school –

- Nasal flu vaccine contain 4 strains and injectable contains 3 strains.
Live vaccine and steroid treatment/Methotrexate/AZT/Leflunomide

- Must not give if they have received past 3 months
- Short term high dose (40mg /day for more than a week)
- Long term lower dose of steroid (> 20mg/d/>2 weeks)
- MTx > 25mg/week
- AZT 3mg/kg/day
- Cholestaramine wash out for leflunomide
Is immunisation effective if you are taking drugs for rheumatoid arthritis?

- The strength of the protective response may not be as great

- Most people generate a useful protective response

- On rituximab treatment, give flu vaccination either before or six months after an infusion.
Flu jab and pneumococcal vaccination

- Annual flu jab
- Pneumococcus vaccination
- Need pneumococcal vaccine to give before starting biologic treatment.
- Check antibody level and booster given before biologic treatment.
- The pneumococcal vaccination and shingles vaccination once
Chickenpox and shingles

- Chicken pox vaccination given in childhood
- Immunoglobulin treatment considered if never had chicken pox or on immunosuppressive drugs and have had close contact with someone with chicken pox
- GP check level of varicella antibody in blood and if its low give Immunoglobulin treatment
- Prophylactic acyclovir
- From 2013, people aged between 70 and 79 will be offered the shingles vaccination.
Shingles vaccination

- Patients should NOT receive the vaccinations:
  - biological therapies
  - cyclophosphamide
  - >10 mg per day of prednisolone
  - >25 mg methotrexate/week
  - >3 mg/kg/day azathioprine
  - >1.5 mg/kg/day mercaptopurine

- Avoid vaccination if they:
  - have other conditions causing severe immunosuppression (for example leukaemia, lymphoma, HIV/AIDS)
  - have active TB
  - pregnancy
Yellow fever vaccine

- Live vaccine
- Not recommended in immunosuppressed patients
- Avoid Travelling to central Africa
- Certain countries need clearance certificate
- Certificate from GP or Tropical disease


Vaccination schedule and ages of administration: www.nhs.uk/Conditions/vaccinations


Flu vaccination:www.nhs.uk/Conditions/vaccinations/Pages/flu-influenza-vaccine

Pneumococcal vaccination:www.nhs.uk/Conditions/vaccinations/Pages/pneumococcal-vaccination
Thank you for listening.