



VACCINATIONS IN THE IMMUNOCOMPROMISED PERSON GUIDELINES FOR THE PATIENT TAKING IMMUNOSUPPRESSANTS, STEROIDS AND THE NEW BIOLOGIC THERAPIES

This is the BSR's most recent guidance and is subject to revision and formal review.

GENERAL INFORMATION

- Cytotoxic/immunosuppressant drugs used by Rheumatologists include Azathioprine, Methotrexate, Leflunomide, Chlorambucil, Cyclophosphamide and Cyclosporin. The new biologics are currently considered with this group.
- The use of live vaccines is contra-indicated unless immunosuppressives are stopped at least 3 months beforehand.
- If use of live vaccines is necessary allow at least 2 weeks, preferably 4 weeks, before immunosuppressive therapy is commenced.
- If a patient is vaccinated while taking immunosuppressives they may not mount the appropriate immune response. Consider repeating 3 months after therapy has ceased if viral titres low.
- Consider using immunoglobulins if contact risk is significant (e.g. Varicella, Measles).

TRAVEL ADVICE

Only 2 live attenuated viruses, yellow fever and polio, are used regularly for foreign travel.

- Yellow fever - this must not be given. Patients should be advised not to travel to countries requiring this e.g. mid-Africa. If the patient has to travel, an exemption statement may be accepted but the patient will be at risk.
- Polio vaccine - the live oral vaccine must not be given. Killed inactivated vaccine can be given but may need to be obtained from abroad so adequate notice must be given.
- Typhoid - the live form should not be given. Killed vaccine is available but only 70% protective.
- Inactive viruses can be given e.g. Rabies, Anthrax, Cholera, Plague.

HOME ADVICE

- Oral live Polio Vaccine (OPV) must not be given to patient or household contacts. Inactivated form (IPV) can be used.
- Measles, Mumps, Rubella (MMR) - all three live vaccines and must not be given to patient but use is not contraindicated in household contacts. Exposure to measles should be treated with immunoglobulin regardless of prior immunisation.
- BCG is contra-indicated in patients on treatment. Consider giving it in juvenile arthritis 4 weeks before immunosuppressives. Patients with juvenile arthritis should be brought up to date with vaccination schedules prior to receiving Methotrexate.
- In immunosuppressed patients, the immunological response to inactive virus vaccines may not be as good as in the healthy and more frequent boosters may be required. There is an increased risk in the immunocompromised from secondary bacterial infections following influenza. Immunisation against Pneumococcal, Meningococcal, Haemophilus B, Tetanus and Hepatitis B infection might be indicated. Check Hep B titres 3 months after the 3rd injection.
- Check Varicella zoster titres prior to immunisation if appropriate.

PATIENTS ON STEROIDS

Live vaccines must not be given to patients taking moderate or high doses of steroids for longer than 2 weeks.

There is no consensus as to what is a low dose of steroid (10mg per day or below is thought a sensible compromise). A full immunosuppressive dose may be 20mg per day and not 40mg as previously accepted.

There are no contra-indications to using live vaccines if:

- Steroid is for less than 2 weeks
- Treatment is alternate day with short acting steroid
- By topical application
- By intra articular or soft tissue injection
- Replacement therapy with physiological doses e.g. adrenal insufficiency
- Long term low dose steroids (10mg per day or less)

Moderate or high dose steroid must be stopped 3 months before live vaccines can be administered.

BIOLOGICS

No data is available on the effects of vaccination in patients receiving biologics e.g. Infliximab, Etanercept or Anakinra.

At present is advised not to give live vaccines concurrently with these drugs.

LEFLUNOMIDE

The long half-life of Leflunomide should be considered when contemplating administration of a live vaccine after stopping the drug.

REFERENCES

- Immunisation against infectious disease, Salisbury and Begg 1996 HMSO
- Vaccination in the Immunocompromised Person Grabosky, Hadler, Chen and Edwards, Bulletin of Rheumatic Disease 1995 44(8) 3-6
- Recommendation of the Advisory Committee on Immunisation Practices - Use of Vaccines and Immune Globulins for Persons with Altered Immunocompetence, Morbidity Weekly Reports 1993 42(RR-4) 1-18

28 January 2002