Long-term immunosuppression

This page covers immunosuppression from about 6 months onwards

Six month review

The immunosuppressive regimen should be reviewed at 6 months post-transplant by the nephrologist responsible for the care of the patient. Patients will be informed prior to transplantation that their immunosuppressive regimen will be reassessed at this stage. The decision must be clearly documented.

Renal biopsy is strongly recommended if

- you are considering steroid withdrawal or a swith in immunosuppression
- there is any adverse trend in creatinine

Is pregnancy possible? Discuss this with the patient at this point – SEE BELOW.

Considerations for long-term Immunosuppression

In a low risk recipient, consider

- Steroid withdrawal
- Using a lower dose of MMF, or replacing it with Azathioprine

In those over 60, consider

If >60 years with standard immunological risk (no DSA), the initial dose of MMF is suggested to be 500mg twice daily. This is due to a lower risk of rejection, and a high rate of intolerance to full dose MMF.

In those with New Diabetes after Transplant (NODAT), consider

- Steroid withdrawal
- Low CNI level

Steroid reduction: suggested tapering

- Week 4 Prednisolone 15mg
- Week 8 Prednisolone 10mg
- Week 12 Prednisolone 5mg

Mycophenolate Mofetil

Maintaining the dosage of MMF is preferable to allow minimisation of CNI dosage. However, side-effects may occur and many patients will require dose reduction. **Mycophenolate is teratogenic** and must be substituted in patients who may become pregnant, see below.

Common side effects:

- Gastrointestinal side-effects are common. Consider an an alternative cause of diarrhoea and exclude infection. If felt to be due to MMF see further info and suggested steps on our page about MMF.
- Leucopenia may occur. Exclude CMV infection. Consider a small dose reduction and monitor white cell count.

Also read further information on our page about MMF.

Pregnancy

All women of childbearing age must be advised on appropriate contraception following transplant, and you should check understanding and thoughts. It is recommended that women avoid pregnancy in the first year, and most are on a contraindicated drug (MMF), so plans to be discussed.

Mycophenolate and pregnancy

Mycophenolate is teratogenic. Check that patients are aware that MMF can harm developing babies, and that they are using appropriate contraception. For women who may become pregnant, **replace MMF with Azathioprine** prior to conception, or as soon as possible after conception in the event that pregnancy

was unplanned. *For patients considering pregnancy soon, do this around 9 months.*

Men and Mycophenolate: Updates to the Summary of Product Characteristics (SmPC) for proprietary brands of mycophenolate derivatives (CellCept® and Myfortic®) include advice that sexually active men exposed to these agents should use condoms during treatment and for 90 days or 13 weeks (respectively) after discontinuation. This was not based on any new evidence, and registry studies of paternal exposure have not identified an increased incidence of fetal malformations. The following advice is from the Renal Association/Renal Pharmacy Group:

> *We recommend that potential fathers taking mycophenolate derivatives are informed of the theoretical risks of mycophenolate exposure to a fetus and be made aware of the contraceptive advice given by the MHRA and contained in the SmPC. We advise that these theoretical risks should be balanced against the risks of conversion to alternative immunosuppressive regimes on their kidney transplant status in an individualised discussion.*

Other issues for those who may become pregnant

- Point patients to our patient info on contraception and pregnancy.
- Advise on risk of pregnancy. The risk of pre-eclampsia and premature delivery will be increased to some degree in all, but is influenced by several simple factors. (*link to follow*).
- Where risks are high or circumstances need further discussion, refer for pre-conception counselling.
- If pregnancy contemplated, commence folate supplement to reduce risk of neural tube defects.

In pregnancy

- Most patients will be deemed to be at high risk of pre-eclampsia and aspirin will be recommended, usually from 12 weeks.
- Refer to a high risk pregnancy obstetrician.
- Monitor calcineurin inhibitor levels, dose may need changing.
- Mention that breast feeding is almost always possible, and best for babies.