

## Quick reference guide

# Immunosuppressive therapy for renal transplantation in children and adolescents

## 1 Guidance

This guidance considers the use of basiliximab, daclizumab, tacrolimus, mycophenolate (mofetil and sodium) and sirolimus in relation to a standard triple therapy regimen of ciclosporin, azathioprine and a corticosteroid following renal transplantation in children and adolescents.

- 1.1 Basiliximab or daclizumab, used as part of a ciclosporin-based immunosuppressive regimen, are recommended as options for induction therapy in the prophylaxis of acute organ rejection in children and adolescents undergoing renal transplantation, irrespective of immunological risk. The induction therapy (basiliximab or daclizumab) with the lowest acquisition cost should be used, unless it is contraindicated.
- 1.2 Tacrolimus is recommended as an alternative option to ciclosporin when a calcineurin inhibitor is indicated as part of an initial or a maintenance immunosuppressive regimen for renal transplantation in children and adolescents. The initial choice of tacrolimus or ciclosporin should be based on the relative importance of their side-effect profiles for the individual patient.
- 1.3 Mycophenolate mofetil (MMF) is recommended as an option as part of an immunosuppressive regimen for child and adolescent renal transplant recipients only when:
  - there is proven intolerance to calcineurin inhibitors, particularly nephrotoxicity which could lead to risk of chronic allograft dysfunction, or
  - there is a very high risk of nephrotoxicity necessitating the minimisation or avoidance of a calcineurin inhibitor until the period of high risk has passed.
- 1.4 The use of MMF in corticosteroid reduction or withdrawal strategies for child and adolescent renal transplant recipients is recommended only within the context of randomised clinical trials.
- 1.5 Mycophenolate sodium is currently not recommended for use as part of an immunosuppressive regimen in child or adolescent renal transplant recipients.
- 1.6 Sirolimus is not recommended for children or adolescents undergoing renal transplantation except when proven intolerance to calcineurin inhibitors (including nephrotoxicity) necessitates the complete withdrawal of these treatments.
- 1.7 As a consequence of following this guidance, some medicines may be prescribed outside the terms of their UK marketing authorisation. Healthcare professionals prescribing these medicines should ensure that children and adolescents receiving renal transplants and/or their legal guardians are aware of this, and that they consent to the use of these medicines in these circumstances.

## 2 Implementation

No costing report or template has been produced for this appraisal, because analysis showed that the guidance is unlikely to result in a significant change to the use of resources. See the NICE website ([www.nice.org.uk/TA099](http://www.nice.org.uk/TA099)) for further information about the analysis.

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### This guidance is written in the following context

This guidance represents the view of the Institute, which was arrived at after careful consideration of the available evidence. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

## Further information

### Quick reference guide

This quick reference guide has been distributed to healthcare professionals working in the NHS in England and Wales (see [www.nice.org.uk/TA099distributionlist](http://www.nice.org.uk/TA099distributionlist)). It is available from [www.nice.org.uk/TA099quickrefguide](http://www.nice.org.uk/TA099quickrefguide)

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1024).

### Full guidance

This contains the following sections:

- 1 Guidance
- 2 Clinical need and practice
- 3 The technology
- 4 Evidence and interpretation
- 5 Recommendations for further research
- 6 Implications for the NHS
- 7 Implementation and audit
- 8 Related guidance
- 9 Review of guidance.

The full guidance also gives details of the Appraisal Committee, the sources of evidence considered and suggested criteria for audit. It is available from [www.nice.org.uk/TA099guidance](http://www.nice.org.uk/TA099guidance)

## Information for the public

Information for people undergoing kidney transplants, their families and carers, and the public is available from [www.nice.org.uk/TA099publicinfo](http://www.nice.org.uk/TA099publicinfo)

For printed copies, phone the NHS Response Line on 0870 1555 455 (quote reference number N1025).

### Related guidance

For information about NICE guidance that has been issued or is in development, see the website ([www.nice.org.uk](http://www.nice.org.uk)).

Guidance on the use of home compared with hospital haemodialysis for patients with end-stage renal failure. *NICE technology appraisal* no. 48 (2002). Available from: [www.nice.org.uk/TA048](http://www.nice.org.uk/TA048)

Immunosuppressive therapy for renal transplantation in adults. *NICE technology appraisal* no. 85 (2004). Available from: [www.nice.org.uk/TA085](http://www.nice.org.uk/TA085)