Immunosuppressive therapy for renal transplantation in children and adolescents

National Institute for Health and Clinical Excellence

Record Status
This is a bibliographic record of a published health technology assessment. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Authors' objectives
The aim of this review is to provide guidance on the use of immunosuppressive therapy for renal transplantation in children and adolescents.

Authors' conclusions
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.