

# References

1. Wolfe RA, Ashby VB, Milford EL et al. Comparison of mortality in all patients on dialysis, patients on dialysis awaiting transplantation, and recipients of a first cadaveric transplant. *N Engl J Med* 1999; 341: 1725–1730.
2. Webster AC, Playford EG, Higgins G et al. Interleukin 2 receptor antagonists for renal transplant recipients: A meta-analysis of randomized trials. *Transplantation* 2004; 77: 166–176.
3. Morton RL, Howard K, Webster AC et al. The cost-effectiveness of induction immunosuppression in kidney transplantation. *Nephrol Dial Transplant* 2009; 24: 2258–2269.
4. Szczech LA, Berlin JA, Aradhye S et al. Effect of anti-lymphocyte induction therapy on renal allograft survival: A meta-analysis. *J Am Soc Nephrol* 1997; 8: 1771–1777.
5. Szczech LA, Berlin JA, Feldman HI. The effect of antilymphocyte induction therapy on renal allograft survival. A meta-analysis of individual patient-level data. Anti-Lymphocyte Antibody Induction Therapy Study Group. *Ann Intern Med* 1998; 128: 817–826.
6. Thibaudin D, Alamartine E, de Filippis JP et al. Advantage of antithymocyte globulin induction in sensitized kidney recipients: A randomized prospective study comparing induction with and without antithymocyte globulin. *Nephrol Dial Transplant* 1998; 13: 711–715.
7. Charpentier B, Rostaing L, Berthoux F et al. A three-arm study comparing immediate tacrolimus therapy with antithymocyte globulin induction therapy followed by tacrolimus or cyclosporine A in adult renal transplant recipients. *Transplantation* 2003; 75: 844–851.
8. Brennan DC, Daller JA, Lake KD et al. Rabbit antithymocyte globulin versus basiliximab in renal transplantation. *N Engl J Med* 2006; 355: 1967–1977.
9. Margreiter R, Klempnauer J, Neuhaus P et al. Alemtuzumab (Campath-1H) and tacrolimus monotherapy after renal transplantation: Results of a prospective randomized trial. *Am J Transplant* 2008; 8: 1480–1485.
10. Thomas PG, Woodside KJ, Lappin JA et al. Alemtuzumab (Campath 1H) induction with tacrolimus monotherapy is safe for high immunological risk renal transplantation. *Transplantation* 2007; 83: 1509–1512.
11. Vathsala A, Ona ET, Tan SY et al. Randomized trial of Alemtuzumab for prevention of graft rejection and preservation of renal function after kidney transplantation. *Transplantation* 2005; 80: 765–774.
12. Ciancio G, Burke GW, Gaynor JJ et al. A randomized trial of three renal transplant induction antibodies: Early comparison of tacrolimus, mycophenolate mofetil, and steroid dosing, and newer immune-monitoring. *Transplantation* 2005; 80: 457–465.
13. Ciancio G, Burke GW, Gaynor JJ et al. A randomized trial of thymoglobulin vs. alemtuzumab (with lower dose maintenance immunosuppression) vs. daclizumab in renal transplantation at 24 months of follow-up. *Clin Transplant* 2008; 22: 200–210.
14. Gore JL, Pham PT, Danovitch GM et al. Obesity and outcome following renal transplantation. *Am J Transplant* 2006; 6: 357–363.
15. Pallardo Mateu LM, Sancho Calabuig A, Capdevila Plaza L et al. Acute rejection and late renal transplant failure: Risk factors and prognosis. *Nephrol Dial Transplant* 2004; 19(Suppl. 3): iii38–42.
16. McDonald R, Donaldson L, Emmett L et al. A decade of living donor transplantation in North American children: The 1998 annual report of the North American Pediatric Renal Transplant Cooperative Study (NAPRTCS). *Pediatr Transplant* 2000; 4: 221–234.
17. Mota A, Figueiredo A, Cunha MF et al. Risk factors for acute rejection in 806 cyclosporine-treated renal transplants: A multivariate analysis. *Transplant Proc* 2003; 35: 1061–1063.
18. Boom H, Mallat MJ, de Fijter JW et al. Delayed graft function influences renal function, but not survival. *Kidney Int* 2000; 58: 859–866.
19. Oien CM, Reisaeter AV, Leivestad T et al. Living donor kidney transplantation: The effects of donor age and gender on short- and long-term outcomes. *Transplantation* 2007; 83: 600–606.
20. Quiroga I, McShane P, Koo DD et al. Major effects of delayed graft function and cold ischaemia time on renal allograft survival. *Nephrol Dial Transplant* 2006; 21: 1689–1696.
21. Sagedal S, Nordal KP, Hartmann A et al. The impact of cytomegalovirus infection and disease on rejection episodes in renal allograft recipients. *Am J Transplant* 2002; 2: 850–856.
22. Webster AC, Woodroffe RC, Taylor RS et al. Tacrolimus versus ciclosporin as primary immunosuppression for kidney transplant recipients: Meta-analysis and meta-regression of randomised trial data. *BMJ* 2005; 331: 810.
23. Kramer BK, Montagnino G, Del Castillo D et al. Efficacy and safety of tacrolimus compared with cyclosporin A microemulsion in renal transplantation: 2 year follow-up results. *Nephrol Dial Transplant* 2005; 20: 968–973.
24. Hardinger KL, Bohl DL, Schnitzler MA et al. A randomized, prospective, pharmaco-economic trial of tacrolimus versus cyclosporine in combination with thymoglobulin in renal transplant recipients. *Transplantation* 2005; 80: 41–46.
25. Vincenti F, Friman S, Scheuermann E et al. Results of an international, randomized trial comparing glucose metabolism disorders and outcome with cyclosporine versus tacrolimus. *Am J Transplant* 2007; 7: 1506–1514.
26. Rowshani AT, Scholten EM, Bemelman F et al. No difference in degree of interstitial Sirius red-stained area in serial biopsies from area under concentration-over-time curves-guided cyclosporine versus tacrolimus-treated renal transplant recipients at one year. *J Am Soc Nephrol* 2006; 17: 305–312.
27. Ekberg H, Tedesco-Silva H, Demirbas A et al. Reduced exposure to calcineurin inhibitors in renal transplantation. *N Engl J Med* 2007; 357: 2562–2575.
28. Murphy GJ, Waller JR, Sandford RS et al. Randomized clinical trial of the effect of microemulsion cyclosporin and tacrolimus on renal allograft fibrosis. *Br J Surg* 2003; 90: 680–686.
29. Rostaing L, Cantarovich D, Mourad G et al. Corticosteroid-free immunosuppression with tacrolimus, mycophenolate mofetil, and daclizumab induction in renal transplantation. *Transplantation* 2005; 79: 807–814.
30. Ekberg H, Grinyo J, Nashan B et al. Cyclosporine sparing with mycophenolate mofetil, daclizumab and corticosteroids in renal allograft recipients: The CAESAR Study. *Am J Transplant* 2007; 7: 560–570.

## References

31. Mycophenolate mofetil in renal transplantation: 3-year results from the placebo-controlled trial. European Mycophenolate Mofetil Cooperative Study Group. *Transplantation* 1999; 68: 391–396.
32. Shapiro R, Jordan ML, Scantlebury VP et al. A prospective, randomized trial of tacrolimus/prednisone versus tacrolimus/prednisone/mycophenolate mofetil in renal transplant recipients. *Transplantation* 1999; 67: 411–415.
33. Knight SR, Russell NK, Barcena L et al. Mycophenolate mofetil decreases acute rejection and may improve graft survival in renal transplant recipients when compared with azathioprine: A systematic review. *Transplantation* 2009; 87: 785–794.
34. A blinded, randomized clinical trial of mycophenolate mofetil for the prevention of acute rejection in cadaveric renal transplantation. The Tricontinental Mycophenolate Mofetil Renal Transplantation Study Group. *Transplantation* 1996; 61: 1029–1037.
35. Sollinger HW. Mycophenolate mofetil for the prevention of acute rejection in primary cadaveric renal allograft recipients. U.S. Renal Transplant Mycophenolate Mofetil Study Group. *Transplantation* 1995; 60: 225–232.
36. Miller J, Mendez R, Pirsch JD et al. Safety and efficacy of tacrolimus in combination with mycophenolate mofetil (MMF) in cadaveric renal transplant recipients. FK506/MMF Dose-Ranging Kidney Transplant Study Group. *Transplantation* 2000; 69: 875–880.
37. Remuzzi G, Lesti M, Gotti E et al. Mycophenolate mofetil versus azathioprine for prevention of acute rejection in renal transplantation (MYSS): A randomised trial. *Lancet* 2004; 364: 503–512.
38. Sadek S, Medina J, Arias M et al. Short-term combination of mycophenolate mofetil with cyclosporine as a therapeutic option for renal transplant recipients: A prospective, multicenter, randomized study. *Transplantation* 2002; 74: 511–517.
39. Ojo AO, Meier-Kriesche HU, Hanson JA et al. Mycophenolate mofetil reduces late renal allograft loss independent of acute rejection. *Transplantation* 2000; 69: 2405–2409.
40. Opelz G, Dohler B. Influence of immunosuppressive regimens on graft survival and secondary outcomes after kidney transplantation. *Transplantation* 2009; 87: 795–802.
41. Craig JC, Webster AC, McDonald SP. The case of azathioprine versus mycophenolate. Do different drugs really cause different transplant outcomes? *Transplantation* 2009; 87: 803–804.
42. Salvadori M, Holzer H, de Mattos A et al. Enteric-coated mycophenolate sodium is therapeutically equivalent to mycophenolate mofetil in de novo renal transplant patients. *Am J Transplant* 2004; 4: 231–236.
43. Budde K, Curtis J, Knoll G et al. Enteric-coated mycophenolate sodium can be safely administered in maintenance renal transplant patients: Results of a 1-year study. *Am J Transplant* 2004; 4: 237–243.
44. Kasiske BL, Chakkera HA, Louis TA et al. A meta-analysis of immunosuppression withdrawal trials in renal transplantation. *J Am Soc Nephrol* 2000; 11: 1910–1917.
45. Pascual J, Quereda C, Zamora J et al. Steroid withdrawal in renal transplant patients on triple therapy with a calcineurin inhibitor and mycophenolate mofetil: A meta-analysis of randomized, controlled trials. *Transplantation* 2004; 78: 1548–1556.
46. ter Meulen CG, van Riemsdijk I, Hene RJ et al. Steroid withdrawal at 3 days after renal transplantation with anti-IL2 receptor alpha therapy: A prospective, randomized, multicenter study. *Am J Transplant* 2004; 4: 803–810.
47. Woodle ES, First MR, Pirsch J et al. A prospective, randomized, double-blind, placebo-controlled multicenter trial comparing early (7 day) corticosteroid cessation versus long-term, low-dose corticosteroid therapy. *Ann Surg* 2008; 248: 564–577.
48. Vincenti F, Schena FP, Paraskevas S et al. A randomized, multicenter study of steroid avoidance, early steroid withdrawal or standard steroid therapy in kidney transplant recipients. *Am J Transplant* 2008; 8: 307–316.
49. Kasiske BL, de Mattos A, Flechner SM et al. Mammalian target of rapamycin inhibitor dyslipidemia in kidney transplant recipients. *Am J Transplant* 2008; 8: 1384–1392.
50. Webster AC, Lee VW, Chapman JR et al. Target of rapamycin inhibitors (TOR-I; sirolimus and everolimus) for primary immunosuppression in kidney transplant recipients. *Cochrane Database Syst Rev* 2006: CD004290.
51. Buchler M, Caillard S, Barbier S et al. Sirolimus versus cyclosporine in kidney recipients receiving thymoglobulin, mycophenolate mofetil and a 6-month course of steroids. *Am J Transplant* 2007; 7: 2522–2531.
52. Langer RM, Kahan BD. Incidence, therapy, and consequences of lymphocele after sirolimus-cyclosporine-prednisone immunosuppression in renal transplant recipients. *Transplantation* 2002; 74: 804–808.
53. Troppmann C, Pierce JL, Gandhi MM et al. Higher surgical wound complication rates with sirolimus immunosuppression after kidney transplantation: A matched-pair pilot study. *Transplantation* 2003; 76: 426–429.
54. Valente JF, Hricik D, Weigel K et al. Comparison of sirolimus vs. mycophenolate mofetil on surgical complications and wound healing in adult kidney transplantation. *Am J Transplant* 2003; 3: 1128–1134.
55. Dean PG, Lund WJ, Larson TS et al. Wound-healing complications after kidney transplantation: A prospective, randomized comparison of sirolimus and tacrolimus. *Transplantation* 2004; 77: 1555–1561.
56. Van Den Akker JM, Wetzels JF, Hoitsma AJ. Proteinuria following conversion from azathioprine to sirolimus in renal transplant recipients. *Kidney Int* 2006; 70: 1355–1357.
57. Webster AC, Lee VW, Chapman JR et al. Target of rapamycin inhibitors (sirolimus and everolimus) for primary immunosuppression of kidney transplant recipients: A systematic review and meta-analysis of randomized trials. *Transplantation* 2006; 81: 1234–1248.
58. Maes B, Hadaya K, de Moor B et al. Severe diarrhea in renal transplant patients: Results of the DIDACT study. *Am J Transplant* 2006; 6: 1466–1472.
59. Jha V, Chugh K. Dialysis in developing countries: Priorities and obstacles. *Nephrology* 1996; 2: 65–71.
60. Chugh KS, Jha V, Chugh S. Economics of dialysis and renal transplantation in the developing world. *Transplant Proc* 1999; 31: 3275–3277.
61. Jha V, Chugh KS. The practice of dialysis in the developing countries. *Hemodialysis International* 2003; 7: 239–249.
62. Jha V, Muthukumar T, Kohli HS et al. Impact of cyclosporine withdrawal on living related renal transplants: A single-center experience. *Am J Kidney Dis* 2001; 37: 119–124.
63. Morgenstern GR, Powles R, Robinson B et al. Cyclosporin interaction with ketoconazole and melphalan. *Lancet* 1982; 2: 1342.
64. Randall T. Cyclosporine-ketoconazole combination offers promise in reducing antirejection therapy costs. *JAMA* 1990; 264: 430–431.
65. Gueco IP, Tan-Torres T, Baniga U et al. Ketoconazole in post-transplant triple therapy: Comparison of costs and outcomes. *Transplant Proc* 1992; 24: 1709–1714.
66. First MR, Schroeder TJ, Michael A et al. Cyclosporine-ketoconazole interaction. Long-term follow-up and preliminary results of a randomized trial. *Transplantation* 1993; 55: 1000–1004.

- 66a. Butman SM, Wild JC, Nolan PE et al. Prospective study of the safety and financial benefit of ketoconazole as adjunctive therapy to cyclosporine after heart transplantation. *J Heart Lung Transplant* 1991; 10: 351–358.
67. Patton PR, Brunson ME, Pfaff WW et al. A preliminary report of diltiazem and ketoconazole. Their cyclosporine-sparing effect and impact on transplant outcome. *Transplantation* 1994; 57: 889–892.
68. Keogh A, Spratt P, McCosker C et al. Ketoconazole to reduce the need for cyclosporine after cardiac transplantation. *N Engl J Med* 1995; 333: 628–633.
69. Sobh MA, Hamdy AF, El Agroudy AE et al. Coadministration of ketoconazole and cyclosporine for kidney transplant recipients: Long-term follow-up and study of metabolic consequences. *Am J Kidney Dis* 2001; 37: 510–517.
70. Abraham MA, Thomas PP, John GT et al. Efficacy and safety of low-dose ketoconazole (50 mg) to reduce the cost of cyclosporine in renal allograft recipients. *Transplant Proc* 2003; 35: 215–216.
71. Carbajal H, Soltero L, Rodríguez-Montalvo C et al. Cyclosporine and low-dose ketoconazole in renal transplant recipients: A single-center experience. *Transplantation* 2004; 77: 1038–1040.
72. Thomas PP, Manivannan J, John GT et al. Sirolimus and ketoconazole co-prescription in renal transplant recipients. *Transplantation* 2004; 77: 474–475.
73. El-Dahshan KF, Bakr MA, Donia AF et al. Ketoconazole-tacrolimus coadministration in kidney transplant recipients: Two-year results of a prospective randomized study. *Am J Nephrol* 2006; 26: 293–298.
- 73a. Soltero L, Carbajal H, Rodríguez-Montalvo C et al. Coadministration of tacrolimus and ketoconazole in renal transplant recipients: Cost analysis and review of metabolic effects. *Transplant Proc* 2003; 35: 1319–1321.
74. El-Agroudy AE, Sobh MA, Hamdy AF et al. A prospective, randomized study of coadministration of ketoconazole and cyclosporine a in kidney transplant recipients: Ten-year follow-up. *Transplantation* 2004; 77: 1371–1376.
75. El-Dahshan KF, Bakr MA, Donia AF et al. Co-administration of ketoconazole to tacrolimus-treated kidney transplant recipients: A prospective randomized study. *Nephrol Dial Transplant* 2004; 19: 1613–1617.
76. Gerntholtz T, Pascoe MD, Botha JF et al. The use of a cyclosporin-ketoconazole combination: Making renal transplantation affordable in developing countries. *Eur J Clin Pharmacol* 2004; 60: 143–148.
77. Foradori A, Mezzano S, Videla C et al. Modification of the pharmacokinetics of cyclosporine A and metabolites by the concomitant use of Neoral and diltiazem or ketoconazol in stable adult kidney transplants. *Transplant Proc* 1998; 30: 1685–1687.
78. Videla C, Vega J, Borja H. Hepatotoxicity associated with cyclosporine monitoring using C2 recommendations in adults renal recipients receiving ketoconazole. *Transplant Proc* 2005; 37: 1574–1576.
79. Guleria S, Kamboj M, Singh P et al. Tacrolimus (Pan Graf) as de novo therapy in renal transplant recipients in India. *Transplant Proc* 2006; 38: 2029–2031.
80. Guleria S, Kamboj M, Sharma M et al. Tacrolimus (Pan Graf) in live related renal transplantation: An initial experience of 101 recipients in India. *Transplant Proc* 2007; 39: 747–749.
81. Guleria S, Kamboj M, Chatterjee A et al. Generic tacrolimus (Pan Graf) in renal transplantation: An experience of 155 recipients in India. *Transplant Proc* 2008; 40: 2237–2239.
82. Dantal J, Hourmant M, Cantarovich D et al. Effect of long-term immunosuppression in kidney-graft recipients on cancer incidence: Randomised comparison of two cyclosporin regimens. *Lancet* 1998; 351: 623–628.
83. Kyllonen LE, Salmela KT. Early cyclosporine C0 and C2 monitoring in de novo kidney transplant patients: A prospective randomized single-center pilot study. *Transplantation* 2006; 81: 1010–1015.
84. Wallemacq P, Goffinet JS, O'Morchoe S et al. Multi-site analytical evaluation of the Abbott ARCHITECT tacrolimus assay. *Ther Drug Monit* 2009; 31: 198–204.
85. Jorgensen K, Povlsen J, Madsen S et al. C2 (2-h) levels are not superior to trough levels as estimates of the area under the curve in tacrolimus-treated renal-transplant patients. *Nephrol Dial Transplant* 2002; 17: 1487–1490.
86. van Gelder T, Le Meur Y, Shaw LM et al. Therapeutic drug monitoring of mycophenolate mofetil in transplantation. *Ther Drug Monit* 2006; 28: 145–154.
87. Knight SR, Morris PJ. Does the evidence support the use of mycophenolate mofetil therapeutic drug monitoring in clinical practice? A systematic review. *Transplantation* 2008; 85: 1675–1685.
88. Le Meur Y, Buchler M, Thierry A et al. Individualized mycophenolate mofetil dosing based on drug exposure significantly improves patient outcomes after renal transplantation. *Am J Transplant* 2007; 7: 2496–2503.
89. Hale MD, Nicholls AJ, Bullingham RE et al. The pharmacokinetic-pharmacodynamic relationship for mycophenolate mofetil in renal transplantation. *Clin Pharmacol Ther* 1998; 64: 672–683.
90. van Gelder T, Hilbrands LB, Vanrenterghem Y et al. A randomized double-blind, multicenter plasma concentration controlled study of the safety and efficacy of oral mycophenolate mofetil for the prevention of acute rejection after kidney transplantation. *Transplantation* 1999; 68: 261–266.
91. Weber LT, Shipkova M, Armstrong VW et al. The pharmacokinetic-pharmacodynamic relationship for total and free mycophenolic Acid in pediatric renal transplant recipients: A report of the german study group on mycophenolate mofetil therapy. *J Am Soc Nephrol* 2002; 13: 759–768.
92. Oellerich M, Shipkova M, Schutz E et al. Pharmacokinetic and metabolic investigations of mycophenolic acid in pediatric patients after renal transplantation: Implications for therapeutic drug monitoring. German Study Group on Mycophenolate Mofetil Therapy in Pediatric Renal Transplant Recipients. *Ther Drug Monit* 2000; 22: 20–26.
93. Kiberd BA, Lawen J, Fraser AD et al. Early adequate mycophenolic acid exposure is associated with less rejection in kidney transplantation. *Am J Transplant* 2004; 4: 1079–1083.
94. Oellerich M, Armstrong VW. The role of therapeutic drug monitoring in individualizing immunosuppressive drug therapy: Recent developments. *Ther Drug Monit* 2006; 28: 720–725.
95. Kahan BD, Camardo JS. Rapamycin: Clinical results and future opportunities. *Transplantation* 2001; 72: 1181–1193.
96. Neumayer HH, Paradis K, Korn A et al. Entry-into-human study with the novel immunosuppressant SDZ RAD in stable renal transplant recipients. *Br J Clin Pharmacol* 1999; 48: 694–703.
97. Kovarik JM, Tedesco H, Pascual J et al. Everolimus therapeutic concentration range defined from a prospective trial with reduced-exposure cyclosporine in de novo kidney transplantation. *Ther Drug Monit* 2004; 26: 499–505.
98. Nashan B. Review of the proliferation inhibitor everolimus. *Expert Opin Investig Drugs* 2002; 11: 1845–1857.

## References

99. Solez K, Colvin RB, Racusen LC et al. Banff 07 classification of renal allograft pathology: Updates and future directions. *Am J Transplant* 2008; 8: 753–760.
100. Rush D, Nickerson P, Gough J et al. Beneficial effects of treatment of early subclinical rejection: A randomized study. *J Am Soc Nephrol* 1998; 9: 2129–2134.
101. Rush DN, Karpinski ME, Nickerson P et al. Does subclinical rejection contribute to chronic rejection in renal transplant patients? *Clin Transplant* 1999; 13: 441–446.
102. Rush D, Arlen D, Boucher A et al. Lack of benefit of early protocol biopsies in renal transplant patients receiving TAC and MMF: A randomized study. *Am J Transplant* 2007; 7: 2538–2545.
103. Kurtkoti J, Sakhuja V, Sud K et al. The utility of 1- and 3-month protocol biopsies on renal allograft function: A randomized controlled study. *Am J Transplant* 2008; 8: 317–323.
104. Gloor JM, Cohen AJ, Lager DJ et al. Subclinical rejection in tacrolimus-treated renal transplant recipients. *Transplantation* 2002; 73: 1965–1968.
105. Webster AC, Pankhurst T, Rinaldi F et al. Monoclonal and polyclonal antibody therapy for treating acute rejection in kidney transplant recipients: A systematic review of randomized trial data. *Transplantation* 2006; 81: 953–965.
106. Mycophenolate mofetil for the treatment of a first acute renal allograft rejection: Three-year follow-up. The Mycophenolate Mofetil Acute Renal Rejection Study Group. *Transplantation* 2001; 71: 1091–1097.
107. Mariat C, Alamartine E, Diab N et al. A randomized prospective study comparing low-dose OKT3 to low-dose ATG for the treatment of acute steroid-resistant rejection episodes in kidney transplant recipients. *Transpl Int* 1998; 11: 231–236.
108. Zarkhin V, Li L, Kambham N et al. A randomized, prospective trial of rituximab for acute rejection in pediatric renal transplantation. *Am J Transplant* 2008; 8: 2607–2617.
109. Solez K, Colvin RB, Racusen LC et al. Banff '05 Meeting Report: Differential diagnosis of chronic allograft injury and elimination of chronic allograft nephropathy ('CAN'). *Am J Transplant* 2007; 7: 518–526.
110. Briganti EM, Russ GR, McNeil JJ et al. Risk of renal allograft loss from recurrent glomerulonephritis. *N Engl J Med* 2002; 347: 103–109.
111. El-Zoghby ZM, Stegall MD, Lager DJ et al. Identifying specific causes of kidney allograft loss. *Am J Transplant* 2009; 9: 527–535.
112. Meyers CM, Kirk AD. Workshop on late renal allograft dysfunction. *Am J Transplant* 2005; 5: 1600–1605.
113. Nankivell BJ, Borrows RJ, Fung CL et al. The natural history of chronic allograft nephropathy. *N Engl J Med* 2003; 349: 2326–2333.
114. Nankivell BJ, Chapman JR. Chronic allograft nephropathy: Current concepts and future directions. *Transplantation* 2006; 81: 643–654.
115. Birnbaum LM, Lipman M, Paraskevas S et al. Management of chronic allograft nephropathy: A systematic review. *Clin J Am Soc Nephrol* 2009; 4: 860–865.
116. Meier-Kriesche H, Heemann U, Merville P et al. TRANCEPT – A prospective observational global clinical study of patients switched to MMF at least 6 months after renal transplantation. Abstract 578 *Transplantation* 2006; 82 (1 Suppl 3): 261.
117. Dudley C, Pohanka E, Riad H et al. *Transplantation* 2005; 79: 466–475.
118. Shihab FS, Waid TH, Conti DJ et al. Conversion from cyclosporine to tacrolimus in patients at risk for chronic renal allograft failure: 60-month results of the CRAF Study. *Transplantation* 2008; 85: 1261–1269.
119. Schena FP, Pascoe MD, Alberu J et al. Conversion from calcineurin inhibitors to sirolimus maintenance therapy in renal allograft recipients: 24-month efficacy and safety results from the CONVERT trial. *Transplantation* 2009; 87: 233–242.
120. Carrier M, Squifflet JP, Pirson Y et al. Maximal hydration during anesthesia increases pulmonary arterial pressures and improves early function of human renal transplants. *Transplantation* 1982; 34: 201–204.
121. Morath C, Zeier M. When should post-transplantation proteinuria be attributed to the renal allograft rather than to the native kidney? *Nat Clin Pract Nephrol* 2007; 3: 18–19.
122. Roodnat JI, Mulder PG, Rischen-Vos J et al. Proteinuria after renal transplantation affects not only graft survival but also patient survival. *Transplantation* 2001; 72: 438–444.
123. Sis B, Campbell PM, Mueller T et al. Transplant glomerulopathy, late antibody-mediated rejection and the ABCD tetrad in kidney allograft biopsies for cause. *Am J Transplant* 2007; 7: 1743–1752.
124. Sijpkens YW, Joosten SA, Wong MC et al. Immunologic risk factors and glomerular C4d deposits in chronic transplant glomerulopathy. *Kidney Int* 2004; 65: 2409–2418.
125. Cosio FG, Grande JP, Wadei H et al. Predicting subsequent decline in kidney allograft function from early surveillance biopsies. *Am J Transplant* 2005; 5: 2464–2472.
126. Barama AA. Mechanisms and management of proteinuria in kidney transplant patients. *Drugs* 2008; 68(Suppl 1): 33–39.
127. Ivanyi B. A primer on recurrent and de novo glomerulonephritis in renal allografts. *Nat Clin Pract Nephrol* 2008; 4: 446–457.
128. David-Neto E, Prado E, Beutel A et al. C4d-positive chronic rejection: A frequent entity with a poor outcome. *Transplantation* 2007; 84: 1391–1398.
129. Fernandez-Fresnedo G, Escallada R, Rodrigo E et al. The risk of cardiovascular disease associated with proteinuria in renal transplant patients. *Transplantation* 2002; 73: 1345–1348.
130. Reichel H, Zeier M, Ritz E. Proteinuria after renal transplantation: Pathogenesis and management. *Nephrol Dial Transplant* 2004; 19: 301–305.
131. McLaren AJ, Fuggle SV, Welsh KI et al. Chronic allograft failure in human renal transplantation: A multivariate risk factor analysis. *Ann Surg* 2000; 232: 98–103.
132. Halimi JM, Matthias B, Al-Najjar A et al. Respective predictive role of urinary albumin excretion and nonalbumin proteinuria on graft loss and death in renal transplant recipients. *Am J Transplant* 2007; 7: 2775–2781.
133. Schwab SJ, Christensen RL, Dougherty K et al. Quantitation of proteinuria by the use of protein-to-creatinine ratios in single urine samples. *Arch Intern Med* 1987; 147: 943–944.
134. Ginsberg JM, Chang BS, Matarese RA et al. Use of single voided urine samples to estimate quantitative proteinuria. *N Engl J Med* 1983; 309: 1543–1546.
135. Rodby RA, Rohde RD, Sharon Z et al. The urine protein to creatinine ratio as a predictor of 24-hour urine protein excretion in type 1 diabetic patients with nephropathy. The Collaborative Study Group. *Am J Kidney Dis* 1995; 26: 904–909.
136. Steinhauslin F, Wauters JP. Quantitation of proteinuria in kidney transplant patients: Accuracy of the urinary protein/creatinine ratio. *Clin Nephrol* 1995; 43: 110–115.
137. Warram JH, Gearin G, Laffel L et al. Effect of duration of type I diabetes on the prevalence of stages of diabetic nephropathy defined by urinary albumin/creatinine ratio. *J Am Soc Nephrol* 1996; 7: 930–937.
138. American Diabetes Association clinical practice recommendations 2001. *Diabetes Care* 2001; 24(Suppl 1): S1–133.

139. Hogg RJ, Portman RJ, Milliner D et al. Evaluation and management of proteinuria and nephrotic syndrome in children: Recommendations from a pediatric nephrology panel established at the National Kidney Foundation conference on proteinuria, albuminuria, risk, assessment, detection, and elimination (PARADE). *Pediatrics* 2000; 105: 1242–1249.
140. Hogg RJ, Furth S, Lemley KV et al. National Kidney Foundation's K/DOQI clinical practice guidelines for chronic kidney disease in children and adolescents: Evaluation, classification, and stratification. *Pediatrics* 2003; 111: 1416–1421.
141. K/DOQI clinical practice guidelines for chronic kidney disease: Evaluation, classification, and stratification. *Am J Kidney Dis* 2002; 39 (2 Suppl 1): S1–266.
142. Perrone RD, Madias NE, Levey AS. Serum creatinine as an index of renal function: New insights into old concepts. *Clin Chem* 1992; 38: 1933–1953.
143. Levey AS, Perrone RD, Madias NE. Serum creatinine and renal function. *Annu Rev Med* 1988; 39: 465–490.
144. Kasiske BL, Andany MA, Danielson B. A thirty percent chronic decline in inverse serum creatinine is an excellent predictor of late renal allograft failure. *Am J Kidney Dis* 2002; 39: 762–768.
145. Kasiske BL, Andany MA, Hernandez D et al. Comparing methods for monitoring serum creatinine to predict late renal allograft failure. *Am J Kidney Dis* 2001; 38: 1065–1073.
146. Ortiz F, Harmoinen A, Paavonen T et al. Is Cystatin C more sensitive than creatinine in detecting early chronic allograft nephropathy? *Clin Nephrol* 2008; 70: 18–25.
147. Sharma AP, Kathiravelu A, Nadarajah R et al. Body mass does not have a clinically relevant effect on cystatin C eGFR in children. *Nephrol Dial Transplant* 2009; 24: 470–474.
148. Dajak M, Ignjatovic S, Jovicic S et al. The values of estimated glomerular filtration rate calculated with creatinine and cystatin C based equations in healthy adults. *Clin Lab* 2008; 54: 153–159.
149. Nankivell BJ, Gruenewald SM, Allen RD et al. Predicting glomerular filtration rate after kidney transplantation. *Transplantation* 1995; 59: 1683–1689.
150. White CA, Huang D, Akbari A et al. Performance of creatinine-based estimates of GFR in kidney transplant recipients: A systematic review. *Am J Kidney Dis* 2008; 51: 1005–1015.
151. Vassalotti JA, Stevens LA, Levey AS. Testing for chronic kidney disease: A position statement from the National Kidney Foundation. *Am J Kidney Dis* 2007; 50: 169–180.
152. Herget-Rosenthal S, Bokenkamp A, Hofmann W. How to estimate GFR-serum creatinine, serum cystatin C or equations? *Clin Biochem* 2007; 40: 153–161.
153. Lamb EJ, Tomson CR, Roderick PJ. Estimating kidney function in adults using formulae. *Ann Clin Biochem* 2005; 42: 321–345.
154. Walsler M. Assessing renal function from creatinine measurements in adults with chronic renal failure. *Am J Kidney Dis* 1998; 32: 23–31.
155. Goerdt PJ, Heim-Duthoy KL, Macres M et al. Predictive performance of renal function estimate equations in renal allografts. *Br J Clin Pharmacol* 1997; 44: 261–265.
156. Gaspari F, Perico N, Remuzzi G. Measurement of glomerular filtration rate. *Kidney Int* 1997; (Suppl 63): S151–154.
157. Kasiske BL. Creatinine excretion after renal transplantation. *Transplantation* 1989; 48: 424–428.
158. Oterdoom LH, van Ree RM, de Vries AP et al. Urinary creatinine excretion reflecting muscle mass is a predictor of mortality and graft loss in renal transplant recipients. *Transplantation* 2008; 86: 391–398.
159. Schwenger V, Korosoglou G, Hinkel UP et al. Real-time contrast-enhanced sonography of renal transplant recipients predicts chronic allograft nephropathy. *Am J Transplant* 2006; 6: 609–615.
160. Hollenbeck M. New diagnostic techniques in clinical nephrology. Colour coded duplex sonography for evaluation of renal transplants—tool or toy for the nephrologist? *Nephrol Dial Transplant* 1994; 9: 1822–1828.
161. Burgos FJ, Pascual J, Marcen R et al. The role of imaging techniques in renal transplantation. *World J Urol* 2004; 22: 399–404.
162. Browne RF, Tuite DJ. Imaging of the renal transplant: Comparison of MRI with duplex sonography. *Abdom Imaging* 2006; 31: 461–482.
163. Schwarz A, Hiss M, Gwinner W et al. Course and relevance of arteriovenous fistulas after renal transplant biopsies. *Am J Transplant* 2008; 8: 826–831.
164. Mehta RL, Kellum JA, Shah SV et al. Acute Kidney Injury Network: Report of an initiative to improve outcomes in acute kidney injury. *Crit Care* 2007; 11: R31.
165. Patschan D, Kribben A, Pietruck F et al. OKT3 therapy in addition to tacrolimus is associated with improved long-term function in patients with steroid refractory renal allograft rejection. *Nephron Clin Pract* 2006; 103: c94–99.
166. Giral-Classe M, Hourmant M, Cantarovich D et al. Delayed graft function of more than six days strongly decreases long-term survival of transplanted kidneys. *Kidney Int* 1998; 54: 972–978.
167. Qureshi F, Rabb H, Kasiske BL. Silent acute rejection during prolonged delayed graft function reduces kidney allograft survival. *Transplantation* 2002; 74: 1400–1404.
168. Mikhalski D, Wissing KM, Ghisdal L et al. Cold ischemia is a major determinant of acute rejection and renal graft survival in the modern era of immunosuppression. *Transplantation* 2008; 85: S3–9.
169. Rush DN, Jeffery JR, Gough J. Protocol biopsies in stable renal transplant patients under triple immunosuppression: Results at 6 months. *Transplant Proc* 1994; 26: 2576.
170. Nankivell BJ, Fenton-Lee CA, Kuypers DR et al. Effect of histological damage on long-term kidney transplant outcome. *Transplantation* 2001; 71: 515–523.
171. Shapiro R, Randhawa P, Jordan ML et al. An analysis of early renal transplant protocol biopsies—the high incidence of subclinical tubulitis. *Am J Transplant* 2001; 1: 47–50.
172. Gough J, Rush D, Jeffery J et al. Reproducibility of the Banff schema in reporting protocol biopsies of stable renal allografts. *Nephrol Dial Transplant* 2002; 17: 1081–1084.
173. Nankivell BJ, Borrows RJ, Fung CL et al. Natural history, risk factors, and impact of subclinical rejection in kidney transplantation. *Transplantation* 2004; 78: 242–249.
174. Roberts IS, Reddy S, Russell C et al. Subclinical rejection and borderline changes in early protocol biopsy specimens after renal transplantation. *Transplantation* 2004; 77: 1194–1198.
175. Nankivell BJ, Chapman JR. The significance of subclinical rejection and the value of protocol biopsies. *Am J Transplant* 2006; 6: 2006–2012.
176. Rush DN, Jeffery JR, Gough J. Sequential protocol biopsies in renal transplant patients. Clinico-pathological correlations using the Banff schema. *Transplantation* 1995; 59: 511–514.
177. Shishido S, Asanuma H, Nakai H et al. The impact of repeated subclinical acute rejection on the progression of chronic allograft nephropathy. *J Am Soc Nephrol* 2003; 14: 1046–1052.
178. Kanetsuna Y, Yamaguchi Y, Toma H et al. Histological evaluation of renal allograft protocol biopsies in the early period and 1 year after transplantation. *Clin Transplant* 2003; 17(Suppl 10): 25–29.

## References

179. Choi BS, Shin MJ, Shin SJ et al. Clinical significance of an early protocol biopsy in living-donor renal transplantation: Ten-year experience at a single center. *Am J Transplant* 2005; 5: 1354–1360.
180. Hergesell O, Felten H, Andrassy K et al. Safety of ultrasound-guided percutaneous renal biopsy-retrospective analysis of 1090 consecutive cases. *Nephrol Dial Transplant* 1998; 13: 975–977.
181. Sakai K, Miyagi Y, Hasegawa T et al. The pathologic impact of tacrolimus on protocol biopsy in renal transplant patients with basiliximab-based immunosuppression. *Transplant Proc* 2005; 37: 1757–1759.
182. Moreso F, Seron D, Carrera M et al. Baseline immunosuppression is associated with histological findings in early protocol biopsies. *Transplantation* 2004; 78: 1064–1068.
183. Toz H, Sen S, Sezis M et al. Comparison of tacrolimus and cyclosporin in renal transplantation by the protocol biopsies. *Transplant Proc* 2004; 36: 134–136.
184. Ferreira LC, Karras A, Martinez F et al. Complications of protocol renal biopsy. *Transplantation* 2004; 77: 1475–1476.
185. Wilczek HE. Percutaneous needle biopsy of the renal allograft. A clinical safety evaluation of 1129 biopsies. *Transplantation* 1990; 50: 790–797.
186. Furness PN, Philpott CM, Chorbadian MT et al. Protocol biopsy of the stable renal transplant: A multicenter study of methods and complication rates. *Transplantation* 2003; 76: 969–973.
187. Schwarz A, Gwinner W, Hiss M et al. Safety and adequacy of renal transplant protocol biopsies. *Am J Transplant* 2005; 5: 1992–1996.
188. Mengel M, Chapman JR, Cosio FG et al. Protocol biopsies in renal transplantation: Insights into patient management and pathogenesis. *Am J Transplant* 2007; 7: 512–517.
189. Hariharan S, Peddi VR, Savin VJ et al. Recurrent and de novo renal diseases after renal transplantation: A report from the renal allograft disease registry. *Am J Kidney Dis* 1998; 31: 928–931.
190. Golgert WA, Appel GB, Hariharan S. Recurrent glomerulonephritis after renal transplantation: An unsolved problem. *Clin J Am Soc Nephrol* 2008; 3: 800–807.
191. Vincenti F, Ghiggeri GM. New insights into the pathogenesis and the therapy of recurrent focal glomerulosclerosis. *Am J Transplant* 2005; 5: 1179–1185.
192. Seikaly MG. Recurrence of primary disease in children after renal transplantation: An evidence-based update. *Pediatr Transplant* 2004; 8: 113–119.
193. Newstead CG. Recurrent disease in renal transplants. *Nephrol Dial Transplant* 2003; 18(Suppl 6): vi68–74.
194. Myslak M, Amer H, Morales P et al. Interpreting post-transplant proteinuria in patients with proteinuria pre-transplant. *Am J Transplant* 2006; 6: 1660–1665.
195. Davenport RD. Apheresis treatment of recurrent focal segmental glomerulosclerosis after kidney transplantation: Re-analysis of published case-reports and case-series. *J Clin Apher* 2001; 16: 175–178.
196. Matalon A, Markowitz GS, Joseph RE et al. Plasmapheresis treatment of recurrent FSGS in adult renal transplant recipients. *Clin Nephrol* 2001; 56: 271–278.
197. Ghiggeri GM, Carraro M, Vincenti F. Recurrent focal glomerulosclerosis in the era of genetics of podocyte proteins: Theory and therapy. *Nephrol Dial Transplant* 2004; 19: 1036–1040.
198. Gohh RY, Yango AF, Morrissey PE et al. Preemptive plasmapheresis and recurrence of FSGS in high-risk renal transplant recipients. *Am J Transplant* 2005; 5: 2907–2912.
199. Cochat P, Schell M, Ranchin B et al. Management of recurrent nephrotic syndrome after kidney transplantation in children. *Clin Nephrol* 1996; 46: 17–20.
200. Mowry J, Marik J, Cohen A et al. Treatment of recurrent focal segmental glomerulosclerosis with high-dose cyclosporine A and plasmapheresis. *Transplant Proc* 1993; 25: 1345–1346.
201. Choy BY, Chan TM, Lai KN. Recurrent glomerulonephritis after kidney transplantation. *Am J Transplant* 2006; 6: 2535–2542.
202. Moriyama T, Nitta K, Suzuki K et al. Latent IgA deposition from donor kidney is the major risk factor for recurrent IgA nephropathy in renal transplantation. *Clin Transplant* 2005; 19(Suppl 14): 41–48.
203. Bantis C, Heering PJ, Aker S et al. Influence of interleukin-10 gene G-1082A polymorphism on recurrent IgA nephropathy. *J Nephrol* 2008; 21: 941–946.
204. Coppo R, Amore A, Chiesa M et al. Serological and genetic factors in early recurrence of IgA nephropathy after renal transplantation. *Clin Transplant* 2007; 21: 728–737.
205. Ohmacht C, Kliem V, Burg M et al. Recurrent immunoglobulin A nephropathy after renal transplantation: A significant contributor to graft loss. *Transplantation* 1997; 64: 1493–1496.
206. Oka K, Imai E, Moriyama T et al. A clinicopathological study of IgA nephropathy in renal transplant recipients: Beneficial effect of angiotensin-converting enzyme inhibitor. *Nephrol Dial Transplant* 2000; 15: 689–695.
207. Berthoux F, El Deeb S, Mariat C et al. Antithymocyte globulin (ATG) induction therapy and disease recurrence in renal transplant recipients with primary IgA nephropathy. *Transplantation* 2008; 85: 1505–1507.
208. Andresdottir MB, Assmann KJ, Hoitsma AJ et al. Recurrence of type I membranoproliferative glomerulonephritis after renal transplantation: Analysis of the incidence, risk factors, and impact on graft survival. *Transplantation* 1997; 63: 1628–1633.
209. Little MA, Dupont P, Campbell E et al. Severity of primary MPGN, rather than MPGN type, determines renal survival and post-transplantation recurrence risk. *Kidney Int* 2006; 69: 504–511.
210. Lien YH, Scott K. Long-term cyclophosphamide treatment for recurrent type I membranoproliferative glomerulonephritis after transplantation. *Am J Kidney Dis* 2000; 35: 539–543.
211. Saxena R, Frankel WL, Sedmak DD et al. Recurrent type I membranoproliferative glomerulonephritis in a renal allograft: Successful treatment with plasmapheresis. *Am J Kidney Dis* 2000; 35: 749–752.
212. Kurtz KA, Schlueter AJ. Management of membranoproliferative glomerulonephritis type II with plasmapheresis. *J Clin Apher* 2002; 17: 135–137.
213. Oberkircher OR, Enama M, West JC et al. Regression of recurrent membranoproliferative glomerulonephritis type II in a transplanted kidney after plasmapheresis therapy. *Transplant Proc* 1988; 20: 418–423.
214. Ahsan N, Manning EC, Dabbs DJ et al. Recurrent type I membranoproliferative glomerulonephritis after renal transplantation and protective role of cyclosporine in acute crescentic transformation. *Clin Transplant* 1997; 11: 9–14.
215. Ponticelli C, Banfi G. Thrombotic microangiopathy after kidney transplantation. *Transpl Int* 2006; 19: 789–794.
216. Quan A, Sullivan EK, Alexander SR. Recurrence of hemolytic uremic syndrome after renal transplantation in children: A report of the North American Pediatric Renal Transplant Cooperative Study. *Transplantation* 2001; 72: 742–745.
217. Loirat C, Niaudet P. The risk of recurrence of hemolytic uremic syndrome after renal transplantation in children. *Pediatr Nephrol* 2003; 18: 1095–1101.

218. Conlon PJ, Brennan DC, Pfaf WW et al. Renal transplantation in adults with thrombotic thrombocytopenic purpura/haemolytic-uraemic syndrome. *Nephrol Dial Transplant* 1996; 11: 1810–1814.
219. Lahlou A, Lang P, Charpentier B et al. Hemolytic uremic syndrome. Recurrence after renal transplantation. Groupe Cooperatif de l'Île-de-France (GCIF). *Medicine (Baltimore)* 2000; 79: 90–102.
220. Artz MA, Steenbergen EJ, Hoitsma AJ et al. Renal transplantation in patients with hemolytic uremic syndrome: High rate of recurrence and increased incidence of acute rejections. *Transplantation* 2003; 76: 821–826.
221. Karthikeyan V, Parasuraman R, Shah V et al. Outcome of plasma exchange therapy in thrombotic microangiopathy after renal transplantation. *Am J Transplant* 2003; 3: 1289–1294.
222. Loirat C, Fremeaux-Bacchi V. Hemolytic uremic syndrome recurrence after renal transplantation. *Pediatr Transplant* 2008; 12: 619–629.
223. Landau D, Shalev H, Levy-Finer G et al. Familial hemolytic uremic syndrome associated with complement factor H deficiency. *J Pediatr* 2001; 138: 412–417.
224. Remuzzi G, Ruggenenti P, Codazzi D et al. Combined kidney and liver transplantation for familial haemolytic uraemic syndrome. *Lancet* 2002; 359: 1671–1672.
225. Jalanko H, Peltonen S, Koskinen A et al. Successful liver-kidney transplantation in two children with aHUS caused by a mutation in complement factor H. *Am J Transplant* 2008; 8: 216–221.
226. Saland JM, Shneider BL, Bromberg JS et al. Successful split liver-kidney transplant for factor H associated hemolytic uremic syndrome. *Clin J Am Soc Nephrol* 2009; 4: 201–206.
227. Banerjee D, Kupin W, Roth D. Hemolytic uremic syndrome after multivisceral transplantation treated with intravenous immunoglobulin. *J Nephrol* 2003; 16: 733–735.
228. Yassa SK, Blessios G, Marinides G et al. Anti-CD20 monoclonal antibody (Rituximab) for life-threatening hemolytic-uremic syndrome. *Clin Transplant* 2005; 19: 423–426.
229. Nachman PH, Segelmark M, Westman K et al. Recurrent ANCA-associated small vessel vasculitis after transplantation: A pooled analysis. *Kidney Int* 1999; 56: 1544–1550.
230. Gera M, Griffin MD, Specks U et al. Recurrence of ANCA-associated vasculitis following renal transplantation in the modern era of immunosuppression. *Kidney Int* 2007; 71: 1296–1301.
231. Rosenstein ED, Ribot S, Ventresca E et al. Recurrence of Wegener's granulomatosis following renal transplantation. *Br J Rheumatol* 1994; 33: 869–871.
232. Nyberg G, Akesson P, Norden G et al. Systemic vasculitis in a kidney transplant population. *Transplantation* 1997; 63: 1273–1277.
233. Clarke AE, Bitton A, Eappen R et al. Treatment of Wegener's granulomatosis after renal transplantation: Is cyclosporine the preferred treatment? *Transplantation* 1990; 50: 1047–1051.
234. Lobbedez T, Comoz F, Renaudineau E et al. Recurrence of ANCA-positive glomerulonephritis immediately after renal transplantation. *Am J Kidney Dis* 2003; 42: E2–6.
235. Geetha D, Seo P. Renal transplantation in the ANCA-associated vasculitides. *Am J Transplant* 2007; 7: 2657–2662.
236. Geetha D, Seo P, Specks U et al. Successful induction of remission with rituximab for relapse of ANCA-associated vasculitis post-kidney transplant: Report of two cases. *Am J Transplant* 2007; 7: 2821–2825.
237. Adams PL, Iskandar SS, Rohr MS. Biopsy-proven resolution of immune complex-mediated crescentic glomerulonephritis with mycophenolate mofetil therapy in an allograft. *Am J Kidney Dis* 1999; 33: 552–554.
238. Harzallah K, Badid C, Fouque D et al. Efficacy of mycophenolate mofetil on recurrent glomerulonephritis after renal transplantation. *Clin Nephrol* 2003; 59: 212–216.
239. Hermle T, Goestemeyer AK, Sweny P et al. Successful therapeutic use of rituximab in refractory Wegener's granulomatosis after renal transplantation. *Clin Nephrol* 2007; 68: 322–326.
240. Nowack R, Gobel U, Klooker P et al. Mycophenolate mofetil for maintenance therapy of Wegener's granulomatosis and microscopic polyangiitis: A pilot study in 11 patients with renal involvement. *J Am Soc Nephrol* 1999; 10: 1965–1971.
241. Khandelwal M, McCormick BB, Lajoie G et al. Recurrence of anti-GBM disease 8 years after renal transplantation. *Nephrol Dial Transplant* 2004; 19: 491–494.
242. Cibrik DM, Kaplan B, Arndorfer JA et al. Renal allograft survival in patients with oxalosis. *Transplantation* 2002; 74: 707–710.
243. Onaca N, Sanchez EQ, Melton LB et al. Cadaveric orthotopic auxiliary split liver transplantation and kidney transplantation: An alternative for type 1 primary hyperoxaluria. *Transplantation* 2005; 80: 421–424.
244. Cochat P, Liutkus A, Fargue S et al. Primary hyperoxaluria type 1: Still challenging! *Pediatr Nephrol* 2006; 21: 1075–1081.
245. Raju DL, Cantarovich M, Brisson ML et al. Primary hyperoxaluria: Clinical course, diagnosis, and treatment after kidney failure. *Am J Kidney Dis* 2008; 51: e1–5.
246. Hoppe B, Beck BB, Milliner DS. The primary hyperoxalurias. *Kidney Int* 2009; 75: 1264–1271.
247. Sikora P, von Unruh GE, Beck B et al. [13C2]oxalate absorption in children with idiopathic calcium oxalate urolithiasis or primary hyperoxaluria. *Kidney Int* 2008; 73: 1181–1186.
248. Rumsby G, Williams E, Coulter-Mackie M. Evaluation of mutation screening as a first line test for the diagnosis of the primary hyperoxalurias. *Kidney Int* 2004; 66: 959–963.
249. Leumann E, Hoppe B, Neuhaus T. Management of primary hyperoxaluria: Efficacy of oral citrate administration. *Pediatr Nephrol* 1993; 7: 207–211.
250. Milliner DS, Eickholt JT, Bergstralh EJ et al. Results of long-term treatment with orthophosphate and pyridoxine in patients with primary hyperoxaluria. *N Engl J Med* 1994; 331: 1553–1558.
251. Mignani R, Feriozzi S, Pisani A et al. Agalsidase therapy in patients with Fabry disease on renal replacement therapy: A nationwide study in Italy. *Nephrol Dial Transplant* 2008; 23: 1628–1635.
252. Shah T, Gill J, Malhotra N et al. Kidney transplant outcomes in patients with Fabry disease. *Transplantation* 2009; 87: 280–285.
253. Mignani R, Panichi V, Giudicissi A et al. Enzyme replacement therapy with agalsidase beta in kidney transplant patients with Fabry disease: A pilot study. *Kidney Int* 2004; 65: 1381–1385.
254. Dziemianko I, Jezior D, Boratynska M et al. Kidney transplantation and enzyme alpha-galactosidase A therapy in patient with Fabry disease: A case report. *Transplant Proc* 2007; 39: 2925–2927.
255. Fine RN, Becker Y, De Geest S et al. Nonadherence consensus conference summary report. *Am J Transplant* 2009; 9: 35–41.
256. Halloran PF. Immunosuppressive drugs for kidney transplantation. *N Engl J Med* 2004; 351: 2715–2729.
257. Gaston RS. Maintenance immunosuppression in the renal transplant recipient: An overview. *Am J Kidney Dis* 2001; 38: S25–35.
258. Osterberg L, Blaschke T. Adherence to medication. *N Engl J Med* 2005; 353: 487–497.
259. Krueger KP, Berger BA, Felkey B. Medication adherence and persistence: A comprehensive review. *Adv Ther* 2005; 22: 313–356.
260. Morrissey PE, Flynn ML, Lin S. Medication noncompliance and its implications in transplant recipients. *Drugs* 2007; 67: 1463–1481.

## References

261. Vlamincik H, Maes B, Evers G et al. Prospective study on late consequences of subclinical non-compliance with immunosuppressive therapy in renal transplant patients. *Am J Transplant* 2004; 4: 1509–1513.
262. Jarzembowski T, John E, Panaro F et al. Impact of non-compliance on outcome after pediatric kidney transplantation: An analysis in racial subgroups. *Pediatr Transplant* 2004; 8: 367–371.
263. Yen EF, Hardinger K, Brennan DC et al. Cost-effectiveness of extending Medicare coverage of immunosuppressive medications to the life of a kidney transplant. *Am J Transplant* 2004; 4: 1703–1708.
264. Butler JA, Roderick P, Mullee M et al. Frequency and impact of nonadherence to immunosuppressants after renal transplantation: A systematic review. *Transplantation* 2004; 77: 769–776.
265. Gaston RS, Hudson SL, Ward M et al. Late renal allograft loss: Noncompliance masquerading as chronic rejection. *Transplant Proc* 1999; 31: 21S–23S.
266. Dobbels F, Vanhaecke J, Desmytere A et al. Prevalence and correlates of self-reported pretransplant nonadherence with medication in heart, liver, and lung transplant candidates. *Transplantation* 2005; 79: 1588–1595.
267. Feldman HI, Hackett M, Bilker W et al. Potential utility of electronic drug compliance monitoring in measures of adverse outcomes associated with immunosuppressive agents. *Pharmacoeconom Drug Saf* 1999; 8: 1–14.
268. Butler JA, Peveler RC, Roderick P et al. Measuring compliance with drug regimens after renal transplantation: Comparison of self-report and clinician rating with electronic monitoring. *Transplantation* 2004; 77: 786–789.
269. Urquhart J. Patient non-compliance with drug regimens: Measurement, clinical correlates, economic impact. *Eur Heart J* 1996; 17(Suppl A): 8–15.
270. Schafer-Keller P, Steiger J, Bock A et al. Diagnostic accuracy of measurement methods to assess non-adherence to immunosuppressive drugs in kidney transplant recipients. *Am J Transplant* 2008; 8: 616–626.
271. Peterson AM, Takiya L, Finley R. Meta-analysis of trials of interventions to improve medication adherence. *Am J Health Syst Pharm* 2003; 60: 657–665.
272. Laederach-Hofmann K, Bunzel B. Noncompliance in organ transplant recipients: A literature review. *Gen Hosp Psychiatry* 2000; 22: 412–424.
273. Schneider J, Kaplan SH, Greenfield S et al. Better physician-patient relationships are associated with higher reported adherence to antiretroviral therapy in patients with HIV infection. *J Gen Intern Med* 2004; 19: 1096–1103.
274. Butler JA, Peveler RC, Roderick P et al. Modifiable risk factors for non-adherence to immunosuppressants in renal transplant recipients: A cross-sectional study. *Nephrol Dial Transplant* 2004; 19: 3144–3149.
275. Nevins TE. Non-compliance and its management in teenagers. *Pediatr Transplant* 2002; 6: 475–479.
276. Beck DE, Fennell RS, Yost RL et al. Evaluation of an educational program on compliance with medication regimens in pediatric patients with renal transplants. *J Pediatr* 1980; 96: 1094–1097.
277. Dobbels F, Van Damme-Lombaert R, Vanhaecke J et al. Growing pains: Non-adherence with the immunosuppressive regimen in adolescent transplant recipients. *Pediatr Transplant* 2005; 9: 381–390.
278. Roter DL, Hall JA, Merisca R et al. Effectiveness of interventions to improve patient compliance: A meta-analysis. *Med Care* 1998; 36: 1138–1161.
279. Andrade AS, McGruder HF, Wu AW et al. A programmable prompting device improves adherence to highly active antiretroviral therapy in HIV-infected subjects with memory impairment. *Clin Infect Dis* 2005; 41: 875–882.
280. Safren SA, Hendriksen ES, Desousa N et al. Use of an on-line pager system to increase adherence to antiretroviral medications. *AIDS Care* 2003; 15: 787–793.
281. Loghman-Adham M. Medication noncompliance in patients with chronic disease: Issues in dialysis and renal transplantation. *Am J Manag Care* 2003; 9: 155–171.
282. Raiz LR, Kilty KM, Henry ML et al. Medication compliance following renal transplantation. *Transplantation* 1999; 68: 51–55.
283. Kiley DJ, Lam CS, Pollak R. A study of treatment compliance following kidney transplantation. *Transplantation* 1993; 55: 51–56.
284. Claxton AJ, Cramer J, Pierce C. A systematic review of the associations between dose regimens and medication compliance. *Clin Ther* 2001; 23: 1296–1310.
285. Chisholm MA, Mulloy LL, Jagadeesan M et al. Impact of clinical pharmacy services on renal transplant patients' compliance with immunosuppressive medications. *Clin Transplant* 2001; 15: 330–336.
286. Kripalani S, Yao X, Haynes RB. Interventions to enhance medication adherence in chronic medical conditions: A systematic review. *Arch Intern Med* 2007; 167: 540–550.
287. De Geest S, Schafer-Keller P, Denhaerynck K et al. Supporting medication adherence in renal transplantation (SMART): A pilot RCT to improve adherence to immunosuppressive regimens. *Clin Transplant* 2006; 20: 359–368.
288. Shellmer DA, Zelikovsky N. The challenges of using medication event monitoring technology with pediatric transplant patients. *Pediatr Transplant* 2007; 11: 422–428.
289. Guidelines for vaccination of solid organ transplant candidates and recipients. *Am J Transplant* 2004; 4(Suppl 10): 160–163.
290. Burroughs M, Moscona A. Immunization of pediatric solid organ transplant candidates and recipients. *Clin Infect Dis* 2000; 30: 857–869.
291. Molrine DC, Hibberd PL. Vaccines for transplant recipients. *Infect Dis Clin North Am* 2001; 15: 273–305.
292. Luthy KE, Tiedeman ME, Beckstrand RL et al. Safety of live-virus vaccines for children with immune deficiency. *J Am Acad Nurse Pract* 2006; 18: 494–503.
293. Prevention of influenza: Recommendations for influenza immunization of children, 2006–2007. *Pediatrics* 2007; 119: 846–851.
294. Keshtkar-Jahromi M, Argani H, Rahnvardi M et al. Antibody response to influenza immunization in kidney transplant recipients receiving either azathioprine or mycophenolate: A controlled trial. *Am J Nephrol* 2008; 28: 654–660.
295. Sanchez-Fructuoso AI, Prats D, Naranjo P et al. Influenza virus immunization effectivity in kidney transplant patients subjected to two different triple-drug therapy immunosuppression protocols: Mycophenolate versus azathioprine. *Transplantation* 2000; 69: 436–439.
296. Recommendations for preventing transmission of infections among chronic hemodialysis patients. *MMWR Recomm Rep* 2001; 50: 1–43.
297. Are booster immunisations needed for lifelong hepatitis B immunity? European Consensus Group on Hepatitis B Immunity. *Lancet* 2000; 355: 561–565.
298. Hirsch HH, Brennan DC, Drachenberg CB et al. Polyomavirus-associated nephropathy in renal transplantation: Interdisciplinary analyses and recommendations. *Transplantation* 2005; 79: 1277–1286.



299. Randhawa P, Brennan DC. BK virus infection in transplant recipients: An overview and update. *Am J Transplant* 2006; 6: 2000–2005.
300. Brennan DC, Agha I, Bohl DL et al. Incidence of BK with tacrolimus versus cyclosporine and impact of preemptive immunosuppression reduction. *Am J Transplant* 2005; 5: 582–594.
301. Almeras C, Foulongne V, Garrigue V et al. Does reduction in immunosuppression in viremic patients prevent BK virus nephropathy in de novo renal transplant recipients? A prospective study. *Transplantation* 2008; 85: 1099–1104.
302. Williams JW, Javadi B, Kadambi PV et al. Leflunomide for polyomavirus type BK nephropathy. *N Engl J Med* 2005; 352: 1157–1158.
303. Paya C, Razonable R. Cytomegalovirus infection after organ transplantation. In: Bowden R, Ljungman P, Paya C (eds). *Transplant infections, 2nd ed.* Lippincott, Williams and Wilkins, 2003, pp 298–325.
304. Hibberd PL, Tolckoff-Rubin NE, Cosimi AB et al. Symptomatic cytomegalovirus disease in the cytomegalovirus antibody seropositive renal transplant recipient treated with OKT3. *Transplantation* 1992; 53: 68–72.
305. Cytomegalovirus. *Am J Transplant* 2004; 4(Suppl 10): 51–58.
306. Hodson EM, Barclay PG, Craig JC et al. Antiviral medications for preventing cytomegalovirus disease in solid organ transplant recipients. *Cochrane Database Syst Rev* 2005: CD003774.
307. Hodson EM, Jones CA, Strippoli GF et al. Immunoglobulins, vaccines or interferon for preventing cytomegalovirus disease in solid organ transplant recipients. *Cochrane Database Syst Rev* 2007: CD005129.
308. Strippoli GF, Hodson EM, Jones C et al. Preemptive treatment for cytomegalovirus viremia to prevent cytomegalovirus disease in solid organ transplant recipients. *Transplantation* 2006; 81: 139–145.
309. Kliem V, Fricke L, Wollbrink T et al. Improvement in long-term renal graft survival due to CMV prophylaxis with oral ganciclovir: Results of a randomized clinical trial. *Am J Transplant* 2008; 8: 975–983.
310. Hibberd PL, Tolckoff-Rubin NE, Conti D et al. Preemptive ganciclovir therapy to prevent cytomegalovirus disease in cytomegalovirus antibody-positive renal transplant recipients. A randomized controlled trial. *Ann Intern Med* 1995; 123: 18–26.
311. Stratta RJ, Shaefer MS, Cushing KA et al. A randomized prospective trial of acyclovir and immune globulin prophylaxis in liver transplant recipients receiving OKT3 therapy. *Arch Surg* 1992; 127: 55–63.
312. Asberg A, Humar A, Rollag H et al. Oral valganciclovir is noninferior to intravenous ganciclovir for the treatment of cytomegalovirus disease in solid organ transplant recipients. *Am J Transplant* 2007; 7: 2106–2113.
313. Humar A, Kumar D, Boivin G et al. Cytomegalovirus (CMV) virus load kinetics to predict recurrent disease in solid-organ transplant patients with CMV disease. *J Infect Dis* 2002; 186: 829–833.
314. Weinberg A, Hodges TN, Li S et al. Comparison of PCR, antigenemia assay, and rapid blood culture for detection and prevention of cytomegalovirus disease after lung transplantation. *J Clin Microbiol* 2000; 38: 768–772.
315. Epstein-Barr virus and lymphoproliferative disorders after transplantation. *Am J Transplant* 2004; 4: 59–65.
316. Cockfield SM, Preiksaitis JK, Jewell LD et al. Post-transplant lymphoproliferative disorder in renal allograft recipients. Clinical experience and risk factor analysis in a single center. *Transplantation* 1993; 56: 88–96.
317. McDonald RA, Smith JM, Ho M et al. Incidence of PTLD in pediatric renal transplant recipients receiving basiliximab, calcineurin inhibitor, sirolimus and steroids. *Am J Transplant* 2008; 8: 984–989.
318. Rowe DT, Webber S, Schauer EM et al. Epstein-Barr virus load monitoring: Its role in the prevention and management of post-transplant lymphoproliferative disease. *Transpl Infect Dis* 2001; 3: 79–87.
319. Paya CV, Fung JJ, Nalesnik MA et al. Epstein-Barr virus-induced posttransplant lymphoproliferative disorders. ASTS/ASTP EBV-PTLD Task Force and The Mayo Clinic Organized International Consensus Development Meeting. *Transplantation* 1999; 68: 1517–1525.
320. Breinig MK, Zitelli B, Starzl TE et al. Epstein-Barr virus, cytomegalovirus, and other viral infections in children after liver transplantation. *J Infect Dis* 1987; 156: 273–279.
321. Lee TC, Savoldo B, Rooney CM et al. Quantitative EBV viral loads and immunosuppression alterations can decrease PTLD incidence in pediatric liver transplant recipients. *Am J Transplant* 2005; 5: 2222–2228.
322. Green M, Michaels MG, Katz BZ et al. CMV-IVIG for prevention of Epstein Barr virus disease and posttransplant lymphoproliferative disease in pediatric liver transplant recipients. *Am J Transplant* 2006; 6: 1906–1912.
323. Harris NL, Jaffe ES, Diebold J et al. The World Health Organization classification of neoplastic diseases of the haematopoietic and lymphoid tissues: Report of the Clinical Advisory Committee Meeting, Airlie House, Virginia, November 1997. *Histopathology* 2000; 36: 69–86.
324. Dharnidharka VR, Sullivan EK, Stablein DM et al. Risk factors for posttransplant lymphoproliferative disorder (PTLD) in pediatric kidney transplantation: A report of the North American Pediatric Renal Transplant Cooperative Study (NAPRTCS). *Transplantation* 2001; 71: 1065–1068.
325. Caillard S, Lelong C, Pessione F et al. Post-transplant lymphoproliferative disorders occurring after renal transplantation in adults: Report of 230 cases from the French Registry. *Am J Transplant* 2006; 6: 2735–2742.
326. Opelz G, Dohler B. Lymphomas after solid organ transplantation: A collaborative transplant study report. *Am J Transplant* 2004; 4: 222–230.
327. Dharnidharka VR, Harmon WE. Management of pediatric postrenal transplantation infections. *Semin Nephrol* 2001; 21: 521–531.
328. Green M. Management of Epstein-Barr virus-induced post-transplant lymphoproliferative disease in recipients of solid organ transplantation. *Am J Transplant* 2001; 1: 103–108.
329. Goldstein SL, Somers MJ, Lande MB et al. Acyclovir prophylaxis of varicella in children with renal disease receiving steroids. *Pediatr Nephrol* 2000; 14: 305–308.
330. Varicella-zoster infections. In: Pickering L, Baker C, Long S, McMillan J (eds). *Red book: 2006 report of the committee on infectious disease of the American Academy of Pediatrics, 27th edn.* American Academy of Pediatrics: Elk Grove Village, IL, 2006, pp 711–725.
331. Koneru B, Tzakis AG, DePuydt LE et al. Transmission of fatal herpes simplex infection through renal transplantation. *Transplantation* 1988; 45: 653–656.
332. Wertheim P, Slaterus KW, Geelen JL et al. Cytomegalo and herpes simplex virus infections in renal transplant recipients. *Scand J Urol Nephrol Suppl* 1985; 92: 5–8.
333. Guidelines for the prevention and management of infectious complications of solid organ transplantation: HHV-6, HHV-7, HHV-8, HSV-1 and -2, VZV. *Am J Transplant* 2004; 4: 66–71.

## References

334. Rubin RH, Tolckoff-Rubin NE. Viral infection in the renal transplant patient. *Proc Eur Dial Transplant Assoc* 1983; 19: 513–526.
335. Rodriguez-Moreno A, Sanchez-Fructuoso AI, Calvo N et al. Varicella infection in adult renal allograft recipients: Experience at one center. *Transplant Proc* 2006; 38: 2416–2418.
336. Arora A, Mendoza N, Brantley J et al. Double-blind study comparing 2 dosages of valacyclovir hydrochloride for the treatment of uncomplicated herpes zoster in immunocompromised patients 18 years of age and older. *J Infect Dis* 2008; 197: 1289–1295.
337. Kurokawa I, Murakawa K, Kumano K. The change in zoster-associated pain treated with oral valacyclovir in immunocompetent patients with acute herpes zoster. *Int J Clin Pract* 2007; 61: 1223–1229.
338. Fehr T, Bossart W, Wahl C et al. Disseminated varicella infection in adult renal allograft recipients: Four cases and a review of the literature. *Transplantation* 2002; 73: 608–611.
339. Boeckh M. Prevention of VZV infection in immunosuppressed patients using antiviral agents. *Herpes* 2006; 13: 60–65.
340. Kidney Disease: Improving Global Outcomes (KDIGO). KDIGO clinical practice guidelines for the prevention, diagnosis, evaluation, and treatment of hepatitis C in chronic kidney disease. *Kidney Int* 2008; (Suppl 109): S1–S99.
341. Burdick RA, Bragg-Gresham JL, Woods JD et al. Patterns of hepatitis B prevalence and seroconversion in hemodialysis units from three continents: The DOPPS. *Kidney Int* 2003; 63: 2222–2229.
342. Tokars JI, Frank M, Alter MJ et al. National surveillance of dialysis-associated diseases in the United States, 2000. *Semin Dial* 2002; 15: 162–171.
343. Harnett JD, Zeldis JB, Parfrey PS et al. Hepatitis B disease in dialysis and transplant patients. Further epidemiologic and serologic studies. *Transplantation* 1987; 44: 369–376.
344. Martin P, Friedman LS. Chronic viral hepatitis and the management of chronic renal failure. *Kidney Int* 1995; 47: 1231–1241.
345. Fabrizi F, Lunghi G, Finazzi S et al. Decreased serum aminotransferase activity in patients with chronic renal failure: Impact on the detection of viral hepatitis. *Am J Kidney Dis* 2001; 38: 1009–1015.
346. Fabrizi F, Martin P, Dixit V et al. HBsAg seropositive status and survival after renal transplantation: Meta-analysis of observational studies. *Am J Transplant* 2005; 5: 2913–2921.
347. Aroldi A, Lampertico P, Montagnino G et al. Natural history of hepatitis B and C in renal allograft recipients. *Transplantation* 2005; 79: 1132–1136.
348. Pfaff WW, Blanton JW. Hepatitis antigenemia and survival after renal transplantation. *Clin Transplant* 1997; 11: 476–479.
349. Mathurin P, Mouquet C, Poynard T et al. Impact of hepatitis B and C virus on kidney transplantation outcome. *Hepatology* 1999; 29: 257–263.
350. Fornairon S, Pol S, Legendre C et al. The long-term virologic and pathologic impact of renal transplantation on chronic hepatitis B virus infection. *Transplantation* 1996; 62: 297–299.
351. Barclay S, Pol S, Mutimer D et al. Erratum to 'The management of chronic hepatitis B in the immunocompromised patient: Recommendations from a single topic meeting' [*J. Clin. Virol.* 41 (4) 2008 243–254]. *J Clin Virol* 2008; 42: 104–115.
352. Jain P, Nijhawan S. Occult hepatitis C virus infection is more common than hepatitis B infection in maintenance hemodialysis patients. *World J Gastroenterol* 2008; 14: 2288–2289.
353. Altindis M, Uslan I, Cetinkaya Z et al. [Investigation of hemodialysis patients in terms of the presence of occult hepatitis B]. *Mikrobiyol Bul* 2007; 41: 227–233.
354. Yakaryilmaz F, Gurbuz OA, Guliter S et al. Prevalence of occult hepatitis B and hepatitis C virus infections in Turkish hemodialysis patients. *Ren Fail* 2006; 28: 729–735.
355. Kanbay M, Gur G, Akcay A et al. Is hepatitis C virus positivity a contributing factor to occult hepatitis B virus infection in hemodialysis patients? *Dig Dis Sci* 2006; 51: 1962–1966.
356. Siagris D, Christofidou M, Triga K et al. Occult hepatitis B virus infection in hemodialysis patients with chronic HCV infection. *J Nephrol* 2006; 19: 327–333.
357. Peres AA, Dias EA, Chesky M et al. Occult hepatitis B in renal transplant patients. *Transpl Infect Dis* 2005; 7: 51–56.
358. Besisik F, Karaca C, Akyuz F et al. Occult HBV infection and YMDD variants in hemodialysis patients with chronic HCV infection. *J Hepatol* 2003; 38: 506–510.
359. Oesterreicher C, Hammer J, Koch U et al. HBV and HCV genome in peripheral blood mononuclear cells in patients undergoing chronic hemodialysis. *Kidney Int* 1995; 48: 1967–1971.
360. Minuk GY, Sun DF, Greenberg R et al. Occult hepatitis B virus infection in a North American adult hemodialysis patient population. *Hepatology* 2004; 40: 1072–1077.
361. Gwak GY, Huh W, Lee DH et al. Occult hepatitis B virus infection in chronic hemodialysis patients in Korea. *Hepatogastroenterology* 2008; 55: 1721–1724.
362. Fabrizi F, Messa PG, Lunghi G et al. Occult hepatitis B virus infection in dialysis patients: A multicentre survey. *Aliment Pharmacol Ther* 2005; 21: 1341–1347.
363. Goral V, Ozkul H, Tekes S et al. Prevalence of occult HBV infection in haemodialysis patients with chronic HCV. *World J Gastroenterol* 2006; 12: 3420–3424.
364. Knoll A, Pietrzyk M, Loss M et al. Solid-organ transplantation in HBsAg-negative patients with antibodies to HBV core antigen: Low risk of HBV reactivation. *Transplantation* 2005; 79: 1631–1633.
365. Berger A, Preiser W, Kachel HG et al. HBV reactivation after kidney transplantation. *J Clin Virol* 2005; 32: 162–165.
366. Savas N, Colak T, Yilmaz U et al. Hepatitis B virus reactivation after renal transplantation: Report of two cases. *Transpl Int* 2007; 20: 301–304.
367. Durluk M, Gaciong Z, Rowinska D et al. Long-term results of treatment of chronic hepatitis B, C and D with interferon-alpha in renal allograft recipients. *Transpl Int* 1998; 11(Suppl 1): S135–139.
368. Fabrizi F, Dulai G, Dixit V et al. Lamivudine for the treatment of hepatitis B virus-related liver disease after renal transplantation: Meta-analysis of clinical trials. *Transplantation* 2004; 77: 859–864.
369. Chan TM, Fang GX, Tang CS et al. Preemptive lamivudine therapy based on HBV DNA level in HBsAg-positive kidney allograft recipients. *Hepatology* 2002; 36: 1246–1252.
370. Santos FR, Haiashi AR, Araujo MR et al. Lamivudine therapy for hepatitis B in renal transplantation. *Braz J Med Biol Res* 2002; 35: 199–203.
371. Kamar N, Sandres-Saune K, Ribes D et al. Effects of long-term lamivudine therapy in renal-transplant patients. *J Clin Virol* 2004; 31: 298–303.
372. Thabut D, Thibault V, Bernard-Chabert B et al. Long-term therapy with lamivudine in renal transplant recipients with chronic hepatitis B. *Eur J Gastroenterol Hepatol* 2004; 16: 1367–1373.
373. de Silva HJ, Herath CA, Sheriff MH. Lamivudine therapy for hepatitis B infection in post-renal transplant patients: Results after 36 months follow-up. *Liver Int* 2005; 25: 1074–1075.

374. Lapinski TW, Flisiak R, Jaroszewicz J et al. Efficiency and safety of lamivudine therapy in patients with chronic HBV infection, dialysis or after kidney transplantation. *World J Gastroenterol* 2005; 11: 400–402.
375. Viganò M, Colombo M, Aroldi A et al. Long-term lamivudine monotherapy in renal-transplant recipients with hepatitis-B-related cirrhosis. *Antivir Ther* 2005; 10: 709–713.
376. Rostaing L, Henry S, Cisterne JM et al. Efficacy and safety of lamivudine on replication of recurrent hepatitis B after cadaveric renal transplantation. *Transplantation* 1997; 64: 1624–1627.
377. Goffin E, Horsmans Y, Cornu C et al. Lamivudine inhibits hepatitis B virus replication in kidney graft recipients. *Transplantation* 1998; 66: 407–409.
378. Jung YO, Lee YS, Yang WS et al. Treatment of chronic hepatitis B with lamivudine in renal transplant recipients. *Transplantation* 1998; 66: 733–737.
379. Kletzmayr J, Watschinger B, Muller C et al. Twelve months of lamivudine treatment for chronic hepatitis B virus infection in renal transplant recipients. *Transplantation* 2000; 70: 1404–1407.
380. Tsai MK, Lai MY, Hu RH et al. Managing hepatitis B reactivation in renal transplant recipients: A 12-year review with emphasis on early detection and early use of lamivudine. *Transplant Proc* 2000; 32: 1935–1936.
381. Lewandowska D, Durlik M, Kukula K et al. Treatment of chronic hepatitis B with lamivudine in renal allograft recipients. *Transplant Proc* 2000; 32: 1369–1370.
382. Antoine C, Landau A, Menoyo V et al. Efficacy and safety of lamivudine in renal transplant patients with chronic hepatitis B. *Transplant Proc* 2000; 32: 384–385.
383. Mouquet C, Bernard B, Poynard T et al. Chronic hepatitis B treatment with lamivudine in kidney transplant patients. *Transplant Proc* 2000; 32: 2762.
384. Fontaine H, Thiers Y, Chretien Y et al. HBV genotypic resistance to lamivudine in kidney recipients and hemodialyzed patients. *Transplantation* 2000; 69: 2090–2094.
385. Lee WC, Wu MJ, Cheng CH et al. Lamivudine is effective for the treatment of reactivation of hepatitis B virus and fulminant hepatic failure in renal transplant recipients. *Am J Kidney Dis* 2001; 38: 1074–1081.
386. Han DJ, Kim TH, Park SK et al. Results on preemptive or prophylactic treatment of lamivudine in HBsAg (+) renal allograft recipients: Comparison with salvage treatment after hepatic dysfunction with HBV recurrence. *Transplantation* 2001; 71: 387–394.
387. Park SK, Yang WS, Lee YS et al. Outcome of renal transplantation in hepatitis B surface antigen-positive patients after introduction of lamivudine. *Nephrol Dial Transplant* 2001; 16: 2222–2228.
388. Mosconi G, Scolari MP, Manna C et al. Lamivudine in recurrent hepatitis B after renal transplantation. *Transplant Proc* 2001; 33: 1873–1874.
389. Filik L, Karakayali H, Moray G et al. Lamivudine therapy in kidney allograft recipients who are seropositive for hepatitis B surface antigen. *Transplant Proc* 2006; 38: 496–498.
390. Wirth S. Antiviral treatment of hepatitis B following solid organ transplantation in children. *Pediatr Transplant* 2006; 10: 271–275.
391. Gane E, Pilmore H. Management of chronic viral hepatitis before and after renal transplantation. *Transplantation* 2002; 74: 427–437.
392. Chan TM, Tse KC, Tang CS et al. Prospective study on lamivudine-resistant hepatitis B in renal allograft recipients. *Am J Transplant* 2004; 4: 1103–1109.
393. Fontaine H, Vallet-Pichard A, Chaix ML et al. Efficacy and safety of adefovir dipivoxil in kidney recipients, hemodialysis patients, and patients with renal insufficiency. *Transplantation* 2005; 80: 1086–1092.
394. Lai CL, Rosmawati M, Lao J et al. Entecavir is superior to lamivudine in reducing hepatitis B virus DNA in patients with chronic hepatitis B infection. *Gastroenterology* 2002; 123: 1831–1838.
395. Kamar N, Milioto O, Alric L et al. Entecavir therapy for adefovir-resistant hepatitis B virus infection in kidney and liver allograft recipients. *Transplantation* 2008; 86: 611–614.
396. Ayoub WS, Keeffe EB. Review article: Current antiviral therapy of chronic hepatitis B. *Aliment Pharmacol Ther* 2008; 28: 167–177.
397. Marcellin P, Heathcote EJ, Buti M et al. Tenofovir disoproxil fumarate versus adefovir dipivoxil for chronic hepatitis B. *N Engl J Med* 2008; 359: 2442–2455.
398. Solid organ transplantation in the HIV-infected patient. *Am J Transplant* 2004; 4: 83–88.
399. Gruber SA, Doshi MD, Cincotta E et al. Preliminary experience with renal transplantation in HIV+ recipients: Low acute rejection and infection rates. *Transplantation* 2008; 86: 269–274.
400. Roland ME, Barin B, Carlson L et al. HIV-infected liver and kidney transplant recipients: 1- and 3-year outcomes. *Am J Transplant* 2008; 8: 355–365.
401. Frassetto LA, Browne M, Cheng A et al. Immunosuppressant pharmacokinetics and dosing modifications in HIV-1 infected liver and kidney transplant recipients. *Am J Transplant* 2007; 7: 2816–2820.
402. Schmaldienst S, Dittrich E, Horl WH. Urinary tract infections after renal transplantation. *Curr Opin Urol* 2002; 12: 125–130.
403. Fox BC, Sollinger HW, Belzer FO et al. A prospective, randomized, double-blind study of trimethoprim-sulfamethoxazole for prophylaxis of infection in renal transplantation: Clinical efficacy, absorption of trimethoprim-sulfamethoxazole, effects on the microflora, and the cost-benefit of prophylaxis. *Am J Med* 1990; 89: 255–274.
404. Hibberd PL, Tolkoff-Rubin NE, Doran M et al. Trimethoprim-sulfamethoxazole compared with ciprofloxacin for the prevention of urinary tract infection in renal transplant recipients. A double-blind, randomized controlled trial. *Online J Curr Clin Trials* 1992; Doc No 15.
405. Munoz P. Management of urinary tract infections and lymphocele in renal transplant recipients. *Clin Infect Dis* 2001; 33(Suppl 1): S53–57.
406. *Pneumocystis jiroveci* (formerly *Pneumocystis carinii*). *Am J Transplant* 2004; 4 (Suppl 10): 135–141.
407. Hughes WT, Rivera GK, Schell MJ et al. Successful intermittent chemoprophylaxis for *Pneumocystis carinii* pneumonitis. *N Engl J Med* 1987; 316: 1627–1632.
408. Guidelines for the prevention and treatment of opportunistic infections among HIV-exposed and HIV-infected children. Recommendations from CDC, the National Institutes of Health, the HIV Medicine Association of the Infections Diseases Society of America, the Pediatric Infections Diseases Society, and the American Academy of Pediatrics. *Morbidity and Mortality Weekly Report* 2009; 58(RR-11), pp. 1–176.
409. Hennequin C, Page B, Roux P et al. Outbreak of *Pneumocystis carinii* pneumonia in a renal transplant unit. *Eur J Clin Microbiol Infect Dis* 1995; 14: 122–126.
410. Sterling RP, Bradley BB, Khalil KG et al. Comparison of biopsy-proven *Pneumocystis carinii* pneumonia in acquired immune deficiency syndrome patients and renal allograft recipients. *Ann Thorac Surg* 1984; 38: 494–499.
411. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient.

## References

- IV.7.2. Late infections. Tuberculosis. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 39–43.
412. Jha V, Chugh KS. Posttransplant infections in the tropical countries. *Artif Organs* 2002; 26: 770–777.
413. Drobniewski FA, Ferguson J. Tuberculosis in renal transplant units. *Nephrol Dial Transplant* 1996; 11: 768–770.
414. MMWR: Treatment of tuberculosis. Centers for Disease Control and Prevention. In (vol 52, RR11), Atlanta, GA, USA, American Thoracic Society, CDC, and Infectious Diseases Society of America, 2003, pp 1–77
415. Agarwal SK, Gupta S, Dash SC et al. Prospective randomised trial of isoniazid prophylaxis in renal transplant recipient. *Int Urol Nephrol* 2004; 36: 425–431.
416. Thomas PA, Jr., Manko MA. Chemoprophylaxis for the prevention of tuberculosis in the immunosuppressed renal allograft recipient. *Transplantation* 1975; 20: 76–77.
417. Naqvi R, Akhtar S, Noor H et al. Efficacy of isoniazid prophylaxis in renal allograft recipients. *Transplant Proc* 2006; 38: 2057–2058.
418. Mycobacterium tuberculosis. *Am J Transplant* 2004; 4(Suppl 10): 37–41.
419. Screening for tuberculosis and tuberculosis infection in high-risk populations. Recommendations of the Advisory Council for the Elimination of Tuberculosis. *MMWR Recomm Rep* 1995; 44: 19–34.
420. Triverio PA, Bridevaux PO, Roux-Lombard P et al. Interferon-gamma release assays versus tuberculin skin testing for detection of latent tuberculosis in chronic haemodialysis patients. *Nephrol Dial Transplant* 2009; 24: 1952–1956.
421. Hursitoglu M, Cikrikcioglu MA, Tukek T et al. Acute effect of low-flux hemodialysis process on the results of the interferon-gamma-based QuantiFERON-TB Gold In-Tube test in end-stage renal disease patients. *Transpl Infect Dis* 2009; 11: 28–32.
422. Winthrop KL, Nyendak M, Calvet H et al. Interferon-gamma release assays for diagnosing mycobacterium tuberculosis infection in renal dialysis patients. *Clin J Am Soc Nephrol* 2008; 3: 1357–1363.
423. Kobashi Y, Mouri K, Obase Y et al. Clinical evaluation of QuantiFERON TB-2G test for immunocompromised patients. *Eur Respir J* 2007; 30: 945–950.
424. Sakhuja V, Jha V, Varma PP et al. The high incidence of tuberculosis among renal transplant recipients in India. *Transplantation* 1996; 61: 211–215.
425. Jha V, Sakhuja V, Gupta D et al. Successful management of pulmonary tuberculosis in renal allograft recipients in a single center. *Kidney Int* 1999; 56: 1944–1950.
426. Vachharajani TJ, Oza UG, Phadke AG et al. Tuberculosis in renal transplant recipients: Rifampicin sparing treatment protocol. *Int Urol Nephrol* 2002; 34: 551–553.
427. Fungal infections. *Am J Transplant* 2004; 4(Suppl 10): 110–134.
428. Vasquez E, Pollak R, Benedetti E. Clotrimazole increases tacrolimus blood levels: A drug interaction in kidney transplant patients. *Clin Transplant* 2001; 15: 95–99.
429. Aakhus S, Dahl K, Wideroe TE. Cardiovascular morbidity and risk factors in renal transplant patients. *Nephrol Dial Transplant* 1999; 14: 648–654.
430. Kasiske BL, Chakkera HA, Roel J. Explained and unexplained ischemic heart disease risk after renal transplantation. *J Am Soc Nephrol* 2000; 11: 1735–1743.
431. Woo YM, McLean D, Kavanagh D et al. The influence of pre-operative electrocardiographic abnormalities and cardiovascular risk factors on patient and graft survival following renal transplantation. *J Nephrol* 2002; 15: 380–386.
432. Ducloux D, Kazory A, Chalopin JM. Predicting coronary heart disease in renal transplant recipients: A prospective study. *Kidney Int* 2004; 66: 441–447.
433. Aakhus S, Dahl K, Wideroe TE. Cardiovascular disease in stable renal transplant patients in Norway: Morbidity and mortality during a 5-yr follow-up. *Clin Transplant* 2004; 18: 596–604.
434. Kiberd B, Panek R. Cardiovascular outcomes in the outpatient kidney transplant clinic: The Framingham risk score revisited. *Clin J Am Soc Nephrol* 2008; 3: 822–828.
435. Ojo AO. Cardiovascular complications after renal transplantation and their prevention. *Transplantation* 2006; 82: 603–611.
436. USRDS 2007 annual data report: Atlas of chronic kidney disease and end-stage renal disease in the United States In, Bethesda, MD, US Renal Data System, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, 2007.
437. Kasiske BL, Maclean JR, Snyder JJ. Acute myocardial infarction and kidney transplantation. *J Am Soc Nephrol* 2006; 17: 900–907.
438. Aker S, Ivens K, Grabensee B et al. Cardiovascular risk factors and diseases after renal transplantation. *Int Urol Nephrol* 1998; 30: 777–788.
439. Arend SM, Mallat MJ, Westendorp RJ et al. Patient survival after renal transplantation; more than 25 years follow-up. *Nephrol Dial Transplant* 1997; 12: 1672–1679.
440. Cosio FG, Alamir A, Yim S et al. Patient survival after renal transplantation: I. The impact of dialysis pre-transplant. *Kidney Int* 1998; 53: 767–772.
441. Kasiske BL. Risk factors for accelerated atherosclerosis in renal transplant recipients. *Am J Med* 1988; 84: 985–992.
442. Kasiske BL, Guijarro C, Massy ZA et al. Cardiovascular disease after renal transplantation. *J Am Soc Nephrol* 1996; 7: 158–165.
443. Lentine KL, Schnitzler MA, Abbott KC et al. De novo congestive heart failure after kidney transplantation: A common condition with poor prognostic implications. *Am J Kidney Dis* 2005; 46: 720–733.
444. Hernandez D, Rufino M, Bartolomei S et al. Clinical impact of preexisting vascular calcifications on mortality after renal transplantation. *Kidney Int* 2005; 67: 2015–2020.
445. Humar A, Gillingham K, Payne WD et al. Increased incidence of cardiac complications in kidney transplant recipients with cytomegalovirus disease. *Transplantation* 2000; 70: 310–313.
446. Kalil RS, Hudson SL, Gaston RS. Determinants of cardiovascular mortality after renal transplantation: A role for cytomegalovirus? *Am J Transplant* 2003; 3: 79–81.
447. Kim SJ, Schaubel DE, Fenton SS et al. Mortality after kidney transplantation: A comparison between the United States and Canada. *Am J Transplant* 2006; 6: 109–114.
448. Lindholm A, Albrechtsen D, Frodin L et al. Ischemic heart disease—major cause of death and graft loss after renal transplantation in Scandinavia. *Transplantation* 1995; 60: 451–457.
449. Matas AJ, Gillingham KJ, Sutherland DE. Half-life and risk factors for kidney transplant outcome—importance of death with function. *Transplantation* 1993; 55: 757–761.
450. Oliveras A, Roquer J, Puig JM et al. Stroke in renal transplant recipients: Epidemiology, predictive risk factors and outcome. *Clin Transplant* 2003; 17: 1–8.
451. Sanfilippo F, Vaughn WK, LeFor WM et al. Multivariate analysis of risk factors in cadaver donor kidney transplantation. *Transplantation* 1986; 42: 28–34.
452. Sung RS, Althoen M, Howell TA et al. Peripheral vascular occlusive disease in renal transplant recipients: Risk factors and impact on kidney allograft survival. *Transplantation* 2000; 70: 1049–1054.

453. Woo YM, Jardine AG, Clark AF et al. Early graft function and patient survival following cadaveric renal transplantation. *Kidney Int* 1999; 55: 692–699.
454. Aalten J, Christiaans MH, de Fijter H et al. The influence of obesity on short- and long-term graft and patient survival after renal transplantation. *Transpl Int* 2006; 19: 901–907.
455. Glanton CW, Kao TC, Cruess D et al. Impact of renal transplantation on survival in end-stage renal disease patients with elevated body mass index. *Kidney Int* 2003; 63: 647–653.
456. Meier-Kriesche HU, Arndorfer JA, Kaplan B. The impact of body mass index on renal transplant outcomes: A significant independent risk factor for graft failure and patient death. *Transplantation* 2002; 73: 70–74.
457. Curtis JJ, Galla JH, Woodford SY et al. Effect of alternate-day prednisone on plasma lipids in renal transplant recipients. *Kidney Int* 1982; 22: 42–47.
458. Groth CG, Backman L, Morales JM et al. Sirolimus (rapamycin)-based therapy in human renal transplantation: Similar efficacy and different toxicity compared with cyclosporine. Sirolimus European Renal Transplant Study Group. *Transplantation* 1999; 67: 1036–1042.
459. Hilbrands LB, Demacker PN, Hoitsma AJ et al. The effects of cyclosporine and prednisone on serum lipid and (apo)lipoprotein levels in renal transplant recipients. *J Am Soc Nephrol* 1995; 5: 2073–2081.
460. Hollander AA, Hene RJ, Hermans J et al. Late prednisone withdrawal in cyclosporine-treated kidney transplant patients: A randomized study. *J Am Soc Nephrol* 1997; 8: 294–301.
461. Hricik DE, Mayes JT, Schukal JA. Independent effects of cyclosporine and prednisone on posttransplant hypercholesterolemia. *Am J Kidney Dis* 1991; 18: 353–358.
462. Ingulli E, Tejani A, Markell M. The beneficial effects of steroid withdrawal on blood pressure and lipid profile in children post-transplantation in the cyclosporine era. *Transplantation* 1993; 55: 1029–1033.
463. John GT, Dakshinamurthy DS, Jeyaseelan L et al. The effect of cyclosporin A on plasma lipids during the first year after renal transplantation. *Natl Med J India* 1999; 12: 14–17.
464. Kupin W, Venkat KK, Oh HK et al. Complete replacement of methylprednisolone by azathioprine in cyclosporine-treated primary cadaveric renal transplant recipients. *Transplantation* 1988; 45: 53–55.
465. Vanrenterghem Y, Lebranchu Y, Hene R et al. Double-blind comparison of two corticosteroid regimens plus mycophenolate mofetil and cyclosporine for prevention of acute renal allograft rejection. *Transplantation* 2000; 70: 1352–1359.
466. National Kidney Foundation. K/DOQI clinical practice guidelines for managing dyslipidemias in chronic kidney disease. *Am J Kidney Dis* 2003; 41 (Suppl 3): S1–91.
467. Diagnosis and classification of diabetes mellitus. *Diabetes Care* 2009; 32(Suppl 1): S62–67.
468. Roth D, Milgrom M, Esquenazi V et al. Posttransplant hyperglycemia. Increased incidence in cyclosporine-treated renal allograft recipients. *Transplantation* 1989; 47: 278–281.
469. Fryer JP, Granger DK, Leventhal JR et al. Steroid-related complications in the cyclosporine era. *Clin Transplant* 1994; 8: 224–229.
470. Revanur VK, Jardine AG, Kingsmore DB et al. Influence of diabetes mellitus on patient and graft survival in recipients of kidney transplantation. *Clin Transplant* 2001; 15: 89–94.
471. Cosio FG, Pesavento TE, Osei K et al. Post-transplant diabetes mellitus: Increasing incidence in renal allograft recipients transplanted in recent years. *Kidney Int* 2001; 59: 732–737.
472. Cosio FG, Pesavento TE, Kim S et al. Patient survival after renal transplantation: IV. Impact of post-transplant diabetes. *Kidney Int* 2002; 62: 1440–1446.
473. Johnny KV, Nampoory MR, Costandi JN et al. High incidence of post-transplant diabetes mellitus in Kuwait. *Diabetes Res Clin Pract* 2002; 55: 123–130.
474. Kasiske BL, Snyder JJ, Gilbertson D et al. Diabetes mellitus after kidney transplantation in the United States. *Am J Transplant* 2003; 3: 178–185.
475. Woodward RS, Schnitzler MA, Baty J et al. Incidence and cost of new onset diabetes mellitus among U.S. wait-listed and transplanted renal allograft recipients. *Am J Transplant* 2003; 3: 590–598.
476. Abbott KC, Lentine KL, Bucci JR et al. Impact of diabetes and hepatitis after kidney transplantation on patients who are affected by hepatitis C virus. *J Am Soc Nephrol* 2004; 15: 3166–3174.
477. Gourishankar S, Jhangri GS, Tonelli M et al. Development of diabetes mellitus following kidney transplantation: A Canadian experience. *Am J Transplant* 2004; 4: 1876–1882.
478. Andrade-Sierra J, Contreras AM, Monteon FJ et al. Risk factors and incidence of posttransplant diabetes mellitus in Mexican kidney recipients. *Arch Med Res* 2006; 37: 961–966.
479. Araki M, Flechner SM, Ismail HR et al. Posttransplant diabetes mellitus in kidney transplant recipients receiving calcineurin or mTOR inhibitor drugs. *Transplantation* 2006; 81: 335–341.
480. Al-Uzri A, Stablein DM, R AC. Posttransplant diabetes mellitus in pediatric renal transplant recipients: A report of the North American Pediatric Renal Transplant Cooperative Study (NAPRTCS). *Transplantation* 2001; 72: 1020–1024.
481. Sukthankar SA, Lewis MA, Webb NJ et al. Diabetes mellitus following paediatric renal transplantation: A single centre experience. *Horm Res* 2007; 67: 84–88.
482. Abbott KC, Bernet VJ, Agodoa LY et al. Differing manifestations of hepatitis C and tacrolimus on hospitalized diabetes mellitus occurring after kidney transplantation. *Ann Epidemiol* 2005; 15: 558–563.
483. Gruber SA, Pescovitz MD, Simmons RL et al. Thromboembolic complications in renal allograft recipients. A report from the prospective randomized study of cyclosporine versus azathioprine-antilymphocyte globulin. *Transplantation* 1987; 44: 775–778.
484. Romagnoli J, Citterio F, Violi P, et al. Post-transplant diabetes mellitus: A case-control analysis of the risk factors. *Transpl Int* 2005; 18: 309–312.
485. Shah T, Kasravi A, Huang E et al. Risk factors for development of new-onset diabetes mellitus after kidney transplantation. *Transplantation* 2006; 82: 1673–1676.
486. Matas AJ, Kandaswamy R, Gillingham KJ et al. Prednisone-free maintenance immunosuppression—a 5-year experience. *Am J Transplant* 2005; 5: 2473–2478.
487. Johnston O, Rose CL, Webster AC et al. Sirolimus is associated with new-onset diabetes in kidney transplant recipients. *J Am Soc Nephrol* 2008; 19: 1411–1418.
488. Burroughs TE, Swindle J, Takemoto S et al. Diabetic complications associated with new-onset diabetes mellitus in renal transplant recipients. *Transplantation* 2007; 83: 1027–1034.
489. Ajabnoor MA, El-Naggar MM, Elayat AA et al. Functional and morphological study of cultured pancreatic islets treated with cyclosporine. *Life Sci* 2007; 80: 345–355.
490. Oetjen E, Baun D, Beimesche S et al. Inhibition of human insulin gene transcription by the immunosuppressive drugs cyclosporin A and tacrolimus in primary, mature islets of transgenic mice. *Mol Pharmacol* 2003; 63: 1289–1295.

## References

491. Ueki M, Yasunami Y, Ina K et al. Diabetogenic effects of FK506 on renal subcapsular islet isografts in rat. *Diabetes Res Clin Pract* 1993; 20: 11–19.
492. Hammond TG, Kind CN. Pancreatic and nephrotoxicity of immunomodulator compounds. *Toxicol Lett* 1995; 82-83: 99–105.
493. Hernandez-Fisac I, Pizarro-Delgado J, Calle C et al. Tacrolimus-induced diabetes in rats courses with suppressed insulin gene expression in pancreatic islets. *Am J Transplant* 2007; 7: 2455–2462.
494. Oberholzer J, Thielke J, Hatipoglu B et al. Immediate conversion from tacrolimus to cyclosporine in the treatment of post-transplantation diabetes mellitus. *Transplant Proc* 2005; 37: 999–1000.
495. Bouchta NB, Ghisdal L, Abramowicz D et al. Conversion from tacrolimus to cyclosporin is associated with a significant improvement of glucose metabolism in patients with new-onset diabetes mellitus after renal transplantation. *Transplant Proc* 2005; 37: 1857–1860.
496. Teutonico A, Schena PF, Di Paolo S. Glucose metabolism in renal transplant recipients: Effect of calcineurin inhibitor withdrawal and conversion to sirolimus. *J Am Soc Nephrol* 2005; 16: 3128–3135.
497. Romagnoli J, Citterio F, Nanni G et al. Incidence of posttransplant diabetes mellitus in kidney transplant recipients immunosuppressed with sirolimus in combination with cyclosporine. *Transplant Proc* 2006; 38: 1034–1036.
498. Kahan BD. Efficacy of sirolimus compared with azathioprine for reduction of acute renal allograft rejection: A randomised multicentre study. The Rapamune US Study Group. *Lancet* 2000; 356: 194–202.
499. Mendez R, Gonwa T, Yang HC et al. A prospective, randomized trial of tacrolimus in combination with sirolimus or mycophenolate mofetil in kidney transplantation: Results at 1 year. *Transplantation* 2005; 80: 303–309.
500. Gonwa T, Mendez R, Yang HC et al. Randomized trial of tacrolimus in combination with sirolimus or mycophenolate mofetil in kidney transplantation: Results at 6 months. *Transplantation* 2003; 75: 1213–1220.
501. Ciancio G, Burke GW, Gaynor JJ et al. A randomized long-term trial of tacrolimus/sirolimus versus tacrolimus/mycophenolate mofetil versus cyclosporine (NEORAL)/sirolimus in renal transplantation. II. Survival, function, and protocol compliance at 1 year. *Transplantation* 2004; 77: 252–258.
502. Anil Kumar MS, Heifets M, Fyfe B et al. Comparison of steroid avoidance in tacrolimus/mycophenolate mofetil and tacrolimus/sirolimus combination in kidney transplantation monitored by surveillance biopsy. *Transplantation* 2005; 80: 807–814.
503. Stern MP, Williams K, Haffner SM. Identification of persons at high risk for type 2 diabetes mellitus: Do we need the oral glucose tolerance test? *Ann Intern Med* 2002; 136: 575–581.
504. Kanaya AM, Wassel Fyr CL, de Rekeneire N et al. Predicting the development of diabetes in older adults: The derivation and validation of a prediction rule. *Diabetes Care* 2005; 28: 404–408.
505. Lyssenko V, Almgren P, Anevski D et al. Predictors of and longitudinal changes in insulin sensitivity and secretion preceding onset of type 2 diabetes. *Diabetes* 2005; 54: 166–174.
506. Sheu WH, Chuang SY, Lee WJ et al. Predictors of incident diabetes, metabolic syndrome in middle-aged adults: A 10-year follow-up study from Kinmen, Taiwan. *Diabetes Res Clin Pract* 2006; 74: 162–168.
507. Lee AJ, Hiscock RJ, Wein P et al. Gestational diabetes mellitus: Clinical predictors and long-term risk of developing type 2 diabetes: A retrospective cohort study using survival analysis. *Diabetes Care* 2007; 30: 878–883.
508. Qaseem A, Vijan S, Snow V et al. Glycemic control and type 2 diabetes mellitus: The optimal hemoglobin A1c targets. A guideline statement from the American College of Physicians. *Ann Intern Med* 2007; 147: 417–422.
509. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). UK Prospective Diabetes Study (UKPDS) Group. *Lancet* 1998; 352: 837–853.
510. Effect of intensive diabetes management on macrovascular events and risk factors in the Diabetes Control and Complications Trial. *Am J Cardiol* 1995; 75: 894–903.
511. Nathan DM, Cleary PA, Backlund JY et al. Intensive diabetes treatment and cardiovascular disease in patients with type 1 diabetes. *N Engl J Med* 2005; 353: 2643–2653.
512. Holman RR, Paul SK, Bethel MA et al. 10-year follow-up of intensive glucose control in type 2 diabetes. *N Engl J Med* 2008; 359: 1577–1589.
513. Gerstein HC, Miller ME, Byington RP et al. Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med* 2008; 358: 2545–2559.
514. Patel A, MacMahon S, Chalmers J et al. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. *N Engl J Med* 2008; 358: 2560–2572.
515. Abaira C, Duckworth W, McCarren M et al. Design of the cooperative study on glycemic control and complications in diabetes mellitus type 2: Veterans Affairs Diabetes Trial. *J Diabetes Complications* 2003; 17: 314–322.
516. Barbosa J, Steffes MW, Sutherland DE et al. Effect of glycemic control on early diabetic renal lesions. A 5-year randomized controlled clinical trial of insulin-dependent diabetic kidney transplant recipients. *JAMA* 1994; 272: 600–606.
517. Harrower AD. Pharmacokinetics of oral antihyperglycaemic agents in patients with renal insufficiency. *Clin Pharmacokinet* 1996; 31: 111–119.
518. Petitpierre B, Perrin L, Rudhardt M et al. Behaviour of chlorpropamide in renal insufficiency and under the effect of associated drug therapy. *Int J Clin Pharmacol* 1972; 6: 120–124.
519. Ferner RE, Chaplin S. The relationship between the pharmacokinetics and pharmacodynamic effects of oral hypoglycaemic drugs. *Clin Pharmacokinet* 1987; 12: 379–401.
520. Sheldon J, Anderson J, Stoner L. Serum concentration and urinary excretion of oral sulfonylurea compounds: Relation to diabetic control. *Diabetes* 1965; 14: 362–367.
521. Krepinsky J, Ingram AJ, Clase CM. Prolonged sulfonylurea-induced hypoglycemia in diabetic patients with end-stage renal disease. *Am J Kidney Dis* 2000; 35: 500–505.
522. Wickersham RM, Novak KK, Schweain SL (eds). *Drug facts and comparisons*. Wolters Kluwer Health, Inc: St. Louis, MO, 2006.
523. Charpentier G, Riveline JP, Varroud-Vial M. Management of drugs affecting blood glucose in diabetic patients with renal failure. *Diabetes Metab* 2000; 26(Suppl 4): 73–85.
524. Snyder RW, Berns JS. Use of insulin and oral hypoglycemic medications in patients with diabetes mellitus and advanced kidney disease. *Semin Dial* 2004; 17: 365–370.
525. Kajosaari LI, Niemi M, Neuvonen M et al. Cyclosporine markedly raises the plasma concentrations of repaglinide. *Clin Pharmacol Ther* 2005; 78: 388–399.
526. O'Neil MA, Smith A, Heckelman PE et al. (eds). *Merck index*. John Wiley & Sons: Hoboken, NJ, 2001. 2564 pp.
527. Sureshkumar KK, Mubin T, Mikhael N et al. Assessment of quality of life after simultaneous pancreas-kidney transplantation. *Am J Kidney Dis* 2002; 39: 1300–1306.

528. Matas AJ, McHugh L, Payne WD et al. Long-term quality of life after kidney and simultaneous pancreas-kidney transplantation. *Clin Transplant* 1998; 12: 233–242.
529. Adang EM, Engel GL, van Hooff JP et al. Comparison before and after transplantation of pancreas-kidney and pancreas-kidney with loss of pancreas—a prospective controlled quality of life study. *Transplantation* 1996; 62: 754–758.
530. Robertson P, Davis C, Larsen J et al. Pancreas transplantation in type 1 diabetes. *Diabetes Care* 2004; 27(Suppl 1): S105.
531. Bromberg JS, Kaplan B, Halloran PF et al. The islet transplant experiment: Time for a reassessment. *Am J Transplant* 2007; 7: 2217–2218.
532. Campbell PM, Senior PA, Salam A et al. High risk of sensitization after failed islet transplantation. *Am J Transplant* 2007; 7: 2311–2317.
533. Standards of medical care in diabetes—2009. *Diabetes Care* 2009; 32(Suppl 1): S13–S61.
534. Belch J, MacCuish A, Campbell I et al. The prevention of progression of arterial disease and diabetes (POPADAD) trial: Factorial randomised placebo controlled trial of aspirin and antioxidants in patients with diabetes and asymptomatic peripheral arterial disease. *BMJ* 2008; 337: a1840.
535. Ogawa H, Nakayama M, Morimoto T et al. Low-dose aspirin for primary prevention of atherosclerotic events in patients with type 2 diabetes: A randomized controlled trial. *JAMA* 2008; 300: 2134–2141.
536. Chobanian AV, Bakris GL, Black HR et al. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 report. *JAMA* 2003; 289: 2560–2572.
537. Whitworth JA. 2003 World Health Organization (WHO)/International Society of Hypertension (ISH) statement on management of hypertension. *J Hypertens* 2003; 21: 1983–1992.
538. K/DOQI clinical practice guidelines on hypertension and antihypertensive agents in chronic kidney disease. *Am J Kidney Dis* 2004; 43: S1–290.
539. The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. *Pediatrics* 2004; 114: 555–576.
540. Mancia G, De Backer G, Dominiczak A et al. 2007 Guidelines for the management of arterial hypertension: The Task Force for the Management of Arterial Hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). *Eur Heart J* 2007; 28: 1462–1536.
541. Screening for high blood pressure: US Preventive Services Task Force reaffirmation recommendation statement. *Ann Intern Med* 2007; 147: 783–786.
542. Kasiske BL, Anjum S, Shah R et al. Hypertension after kidney transplantation. *Am J Kidney Dis* 2004; 43: 1071–1081.
543. Opelz G, Zeier M, Laux G et al. No improvement of patient or graft survival in transplant recipients treated with angiotensin-converting enzyme inhibitors or angiotensin II type 1 receptor blockers: A collaborative transplant study report. *J Am Soc Nephrol* 2006; 17: 3257–3262.
544. Opelz G, Dohler B. Improved long-term outcomes after renal transplantation associated with blood pressure control. *Am J Transplant* 2005; 5: 2725–2731.
545. Opelz G, Wujciak T, Ritz E. Association of chronic kidney graft failure with recipient blood pressure. Collaborative Transplant Study. *Kidney Int* 1998; 53: 217–222.
546. Mange KC, Cizman B, Joffe M et al. Arterial hypertension and renal allograft survival. *JAMA* 2000; 283: 633–638.
547. Mange KC, Feldman HI, Joffe MM et al. Blood pressure and the survival of renal allografts from living donors. *J Am Soc Nephrol* 2004; 15: 187–193.
548. Marques M, Prats D, Sanchez-Fuctuoso A et al. Incidence of renal artery stenosis in pediatric en bloc and adult single kidney transplants. *Transplantation* 2001; 71: 164–166.
549. Patel NH, Jindal RM, Wilkin T et al. Renal arterial stenosis in renal allografts: Retrospective study of predisposing factors and outcome after percutaneous transluminal angioplasty. *Radiology* 2001; 219: 663–667.
550. Polak WG, Jezior D, Garcarek J et al. Incidence and outcome of transplant renal artery stenosis: Single center experience. *Transplant Proc* 2006; 38: 131–132.
551. Rengel M, Gomes-Da-Silva G, Inchaustegui L et al. Renal artery stenosis after kidney transplantation: Diagnostic and therapeutic approach. *Kidney Int* 1998; (Suppl 68): S99–S106.
552. Voiculescu A, Schmitz M, Hollenbeck M et al. Management of arterial stenosis affecting kidney graft perfusion: A single-centre study in 53 patients. *Am J Transplant* 2005; 5: 1731–1738.
553. Wong W, Fynn SP, Higgins RM et al. Transplant renal artery stenosis in 77 patients—does it have an immunological cause? *Transplantation* 1996; 61: 215–219.
554. Curtis JJ, Luke RG, Diethelm AG et al. Benefits of removal of native kidneys in hypertension after renal transplantation. *Lancet* 1985; 2: 739–742.
555. Fricke L, Doehn C, Steinhoff J et al. Treatment of posttransplant hypertension by laparoscopic bilateral nephrectomy? *Transplantation* 1998; 65: 1182–1187.
556. Fornara P, Doehn C, Fricke L et al. Laparoscopic bilateral nephrectomy: Results in 11 renal transplant patients. *J Urol* 1997; 157: 445–449.
557. Hiremath S, Fergusson D, Doucette S et al. Renin angiotensin system blockade in kidney transplantation: A systematic review of the evidence. *Am J Transplant* 2007; 7: 2350–2360.
558. Vlahakos DV, Canzanello VJ, Madaio MP et al. Enalapril-associated anemia in renal transplant recipients treated for hypertension. *Am J Kidney Dis* 1991; 17: 199–205.
559. Gossmann J, Kachel HG, Schoeppe W et al. Anemia in renal transplant recipients caused by concomitant therapy with azathioprine and angiotensin-converting enzyme inhibitors. *Transplantation* 1993; 56: 585–589.
560. Stigant CE, Cohen J, Vivera M et al. ACE inhibitors and angiotensin II antagonists in renal transplantation: An analysis of safety and efficacy. *Am J Kidney Dis* 2000; 35: 58–63.
561. Paoletti E, Cassottana P, Amidone M et al. ACE inhibitors and persistent left ventricular hypertrophy after renal transplantation: A randomized clinical trial. *Am J Kidney Dis* 2007; 50: 133–142.
562. Curtis JJ, Luke RG, Jones P et al. Hypertension in cyclosporine-treated renal transplant recipients is sodium dependent. *Am J Med* 1988; 85: 134–138.
563. Knauf H, Cawello W, Schmidt G et al. The saluretic effect of the thiazide diuretic bemetizide in relation to the glomerular filtration rate. *Eur J Clin Pharmacol* 1994; 46: 9–13.
564. Knauf H, Mutschler E. Diuretic effectiveness of hydrochlorothiazide and furosemide alone and in combination in chronic renal failure. *J Cardiovasc Pharmacol* 1995; 26: 394–400.
565. Dussol B, Moussi-Frances J, Morange S et al. A randomized trial of furosemide vs hydrochlorothiazide in patients with chronic renal failure and hypertension. *Nephrol Dial Transplant* 2005; 20: 349–353.
566. Kasiske B, Cosio FG, Beto J et al. Clinical practice guidelines for managing dyslipidemias in kidney transplant patients: A report

## References

- from the Managing Dyslipidemias in Chronic Kidney Disease Work Group of the National Kidney Foundation Kidney Disease Outcomes Quality Initiative. *Am J Transplant* 2004; 4(Suppl 7): 13–53.
567. Holdaas H, Fellstrom B, Jardine AG et al. Effect of fluvastatin on cardiac outcomes in renal transplant recipients: A multicentre, randomised, placebo-controlled trial. *Lancet* 2003; 361: 2024–2031.
568. Holdaas H, Fellstrom B, Cole E et al. Long-term cardiac outcomes in renal transplant recipients receiving fluvastatin: The ALERT extension study. *Am J Transplant* 2005; 5: 2929–2936.
569. Executive summary of the third report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol In Adults (Adult Treatment Panel III). *JAMA* 2001; 285: 2486–2497.
570. Screening for lipid disorders in children: US Preventive Services Task Force recommendation statement. *Pediatrics* 2007; 120: e215–219.
571. Cleeman JI, Grundy SM. National Cholesterol Education Program recommendations for cholesterol testing in young adults. A science-based approach. *Circulation* 1997; 95: 1646–1650.
572. Raw M, Anderson P, Batra A et al. WHO Europe evidence based recommendations on the treatment of tobacco dependence. *Tob Control* 2002; 11: 44–46.
573. Counseling to prevent tobacco use and tobacco-caused disease. In, Rockville, MD, US Preventive Services Task Force. Agency for Healthcare Research and Quality 2003, pp 1–5
574. VA/DoD clinical practice guideline for the management of tobacco use. Dept. of Veteran Affairs. In, Washington, DC, 2004, p 81
575. Ranney L, Melvin C, Lux L et al. Tobacco use: Prevention, cessation, and control. Evidence Report/Technology Assessment No. 140. (Prepared by the RTI International—University of North Carolina Evidence-Based Practice Center under Contract No. 290–02-0016). AHRQ Publication No. 06-E015. In, Rockville, MD, US Preventive Services Task Force, Agency for Healthcare Research and Quality (AHRQ), 2006.
576. Fiore MC, Jaen CR, Baker TB et al. Clinical practice guideline: Treating tobacco use and dependence: 2008 update. U.S. Department of Health and Human Services, Public Health Service, May 2008. In, Washington, DC, US Department of Health and Human Services. Public Health Service, 2008.
577. Brief interventions and referral for smoking cessation in primary care and other settings. Public Health Interventions Advisory Committee (PHIAC). Public Health Intervention Guidance no. 1. March, 2006. NHS National Institute for Health and Clinical Excellence (NICE). In, London, England, UK, 2006.
578. Counseling and interventions to prevent tobacco use and tobacco-caused disease in adults and pregnant women: U.S. Preventive Services Task Force reaffirmation recommendation statement. *Ann Intern Med* 2009; 150: 551–555.
579. Teo KK, Ounpuu S, Hawken S et al. Tobacco use and risk of myocardial infarction in 52 countries in the INTERHEART study: A case-control study. *Lancet* 2006; 368: 647–658.
580. Ranney L, Melvin C, Lux L et al. Systematic review: Smoking cessation intervention strategies for adults and adults in special populations. *Ann Intern Med* 2006; 145: 845–856.
581. Wu P, Wilson K, Dimoulas P et al. Effectiveness of smoking cessation therapies: A systematic review and meta-analysis. *BMC Public Health* 2006; 6: 300.
582. Moore D, Aveyard P, Connock M et al. Effectiveness and safety of nicotine replacement therapy assisted reduction to stop smoking: Systematic review and meta-analysis. *BMJ* 2009; 338: b1024.
583. Anthonisen NR, Skeans MA, Wise RA et al. The effects of a smoking cessation intervention on 14.5-year mortality: A randomized clinical trial. *Ann Intern Med* 2005; 142: 233–239.
584. Mohiuddin SM, Mooss AN, Hunter CB et al. Intensive smoking cessation intervention reduces mortality in high-risk smokers with cardiovascular disease. *Chest* 2007; 131: 446–452.
585. Lewis BR, Aoun SL, Bernstein GA et al. Pharmacokinetic interactions between cyclosporine and bupropion or methylphenidate. *J Child Adolesc Psychopharmacol* 2001; 11: 193–198.
586. Cosio FG, Falkenhain ME, Pesavento TE et al. Patient survival after renal transplantation: II. The impact of smoking. *Clin Transplant* 1999; 13: 336–341.
587. Kasiske BL, Chakkera H. Successful renal transplantation in American Indians. *Transplantation* 1998; 66: 209–214.
588. Kasiske BL, Klinger D. Cigarette smoking in renal transplant recipients. *J Am Soc Nephrol* 2000; 11: 753–759.
589. Nguyen PT, Galanti L, Pirson Y et al. Identification of current smokers among renal transplant recipients. *Nephrol Dial Transplant* 2007; 22: 1974–1978.
590. National Heart, Lung, and Blood Institute. The practical guide: Identification, evaluation, and treatment of overweight and obesity in adults. U.S. Department of Health and Human Services Public Health Service, National Institutes of Health. In, Bethesda, MD, NIH, 2000.
591. US Preventive Services Task Force. Screening and interventions for overweight in children and adolescents: Recommendation statement. *Pediatrics* 2005; 116: 205–209.
592. Eckel RH, Krauss RM. American Heart Association call to action: Obesity as a major risk factor for coronary heart disease. *AHA Nutrition Committee. Circulation* 1998; 97: 2099–2100.
593. Screening for obesity in adults: Recommendations and rationale. *Ann Intern Med* 2003; 139: 930–932.
594. Klein S, Burke LE, Bray GA et al. Clinical implications of obesity with specific focus on cardiovascular disease: A statement for professionals from the American Heart Association Council on Nutrition, Physical Activity, and Metabolism: Endorsed by the American College of Cardiology Foundation. *Circulation* 2004; 110: 2952–2967.
595. Daniels SR, Arnett DK, Eckel RH et al. Overweight in children and adolescents: Pathophysiology, consequences, prevention, and treatment. *Circulation* 2005; 111: 1999–2012.
596. VA/DoD clinical practice guideline for screening and management of overweight and obesity. Management of Overweight and Obesity Working Group. In, Washington, DC, Department of Veterans Affairs, Department of Defense, 2006, p 117.
597. Obesity: The prevention, identification, assessment and management of overweight and obesity in adults and children. National Collaborating Centre for Primary Care and the Centre for Public Health Excellence at NICE (NHS National Institute for Health and Clinical Excellence, UK). In, London, England, UK, National Collaborating Centre for Primary Care and the Centre for Public Health Excellence at NICE (NHS National Institute for Health and Clinical Excellence, UK), 2006.
598. Marterre WF, Hariharan S, First MR et al. Gastric bypass in morbidly obese kidney transplant recipients. *Clin Transplant* 1996; 10: 414–419.
599. Alexander JW, Goodman HR, Gersin K et al. Gastric bypass in morbidly obese patients with chronic renal failure and kidney transplant. *Transplantation* 2004; 78: 469–474.
600. Alexander JW, Goodman H. Gastric bypass in chronic renal failure and renal transplant. *Nutr Clin Pract* 2007; 22: 16–21.
601. Patel MG. The effect of dietary intervention on weight gains after renal transplantation. *J Ren Nutr* 1998; 8: 137–141.



602. Lopes IM, Martin M, Errasti P et al. Benefits of a dietary intervention on weight loss, body composition, and lipid profile after renal transplantation. *Nutrition* 1999; 15: 7–10.
603. Painter PL, Hector L, Ray K et al. Effects of exercise training on coronary heart disease risk factors in renal transplant recipients. *Am J Kidney Dis* 2003; 42: 362–369.
604. Li Z, Maglione M, Tu W et al. Meta-analysis: Pharmacologic treatment of obesity. *Ann Intern Med* 2005; 142: 532–546.
605. Nissen SE, Nicholls SJ, Wolski K et al. Effect of rimonabant on progression of atherosclerosis in patients with abdominal obesity and coronary artery disease: The STRADIVARIUS randomized controlled trial. *JAMA* 2008; 299: 1547–1560.
606. Christensen R, Kristensen PK, Bartels EM et al. Efficacy and safety of the weight-loss drug rimonabant: A meta-analysis of randomised trials. *Lancet* 2007; 370: 1706–1713.
607. Barbaro D, Orsini P, Pallini S et al. Obesity in transplant patients: Case report showing interference of orlistat with absorption of cyclosporine and review of literature. *Endocr Pract* 2002; 8: 124–126.
608. Errasti P, Garcia I, Lavilla J et al. Reduction in blood cyclosporine concentration by orlistat in two renal transplant patients. *Transplant Proc* 2002; 34: 137–139.
609. Evans S, Michael R, Wells H et al. Drug interaction in a renal transplant patient: Cyclosporin-neoral and orlistat. *Am J Kidney Dis* 2003; 41: 493–496.
610. Buchwald H, Avidor Y, Braunwald E et al. Bariatric surgery: A systematic review and meta-analysis. *JAMA* 2004; 292: 1724–1737.
611. Maggard MA, Shugarman LR, Suttrop M et al. Meta-analysis: Surgical treatment of obesity. *Ann Intern Med* 2005; 142: 547–559.
612. Sjostrom L, Narbro K, Sjostrom CD et al. Effects of bariatric surgery on mortality in Swedish obese subjects. *N Engl J Med* 2007; 357: 741–752.
613. Adams TD, Gress RE, Smith SC et al. Long-term mortality after gastric bypass surgery. *N Engl J Med* 2007; 357: 753–761.
614. Buch KE, El-Sabroun R, Butt KM. Complications of laparoscopic gastric banding in renal transplant recipients: A case study. *Transplant Proc* 2006; 38: 3109–3111.
615. Patrono C, Bachmann F, Baigent C et al. Expert consensus document on the use of antiplatelet agents. The task force on the use of antiplatelet agents in patients with atherosclerotic cardiovascular disease of the European society of cardiology. *Eur Heart J* 2004; 25: 166–181.
616. Smith SC, Jr., Allen J, Blair SN et al. AHA/ACC guidelines for secondary prevention for patients with coronary and other atherosclerotic vascular disease: 2006 update: Endorsed by the National Heart, Lung, and Blood Institute. *Circulation* 2006; 113: 2363–2372.
617. Mosca L, Banka CL, Benjamin EJ et al. Evidence-based guidelines for cardiovascular disease prevention in women: 2007 update. *Circulation* 2007; 115: 1481–1501.
618. Irish A. Hypercoagulability in renal transplant recipients. Identifying patients at risk of renal allograft thrombosis and evaluating strategies for prevention. *Am J Cardiovasc Drugs* 2004; 4: 139–149.
619. Grotz W, Siebig S, Olschewski M et al. Low-dose aspirin therapy is associated with improved allograft function and prolonged allograft survival after kidney transplantation. *Transplantation* 2004; 77: 1848–1853.
620. Kasiske BL, Snyder JJ, Gilbertson DT et al. Cancer after kidney transplantation in the United States. *Am J Transplant* 2004; 4: 905–913.
621. Vajdic CM, McDonald SP, McCredie MR et al. Cancer incidence before and after kidney transplantation. *JAMA* 2006; 296: 2823–2831.
622. GLOBOCAN 2002. In, International Agency for Research on Cancer, Cancer Mondial, 2002.
623. Grulich AE, van Leeuwen MT, Falster MO et al. Incidence of cancers in people with HIV/AIDS compared with immunosuppressed transplant recipients: A meta-analysis. *Lancet* 2007; 370: 59–67.
624. United States Cancer Statistics: 1999–2005 incidence and mortality web-based report. U.S. Cancer Statistics Working Group, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute. In (vol 2009), Atlanta, GA, U.S. Cancer Statistics Working Group, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute, 2009.
625. Webster AC, Craig JC, Simpson JM et al. Identifying high risk groups and quantifying absolute risk of cancer after kidney transplantation: A cohort study of 15,183 recipients. *Am J Transplant* 2007; 7: 2140–2151.
626. Carroll RP, Ramsay HM, Fryer AA et al. Incidence and prediction of nonmelanoma skin cancer post-renal transplantation: A prospective study in Queensland, Australia. *Am J Kidney Dis* 2003; 41: 676–683.
627. Kasiske BL, Vazquez MA, Harmon WE et al. Recommendations for the outpatient surveillance of renal transplant recipients. American Society of Transplantation. *J Am Soc Nephrol* 2000; 11(Suppl 15): S1–86.
628. Helfand M, Krages KP: Counseling to prevent skin cancer: A summary of the evidence. In, US Preventive Services Task Force, Agency for Healthcare Research and Quality (AHRQ), 2003, p 253
629. Saraiya M, Glanz K, Briss PA et al. Interventions to prevent skin cancer by reducing exposure to ultraviolet radiation: A systematic review. *Am J Prev Med* 2004; 27: 422–466.
630. Green A, Williams G, Neale R et al. Daily sunscreen application and betacarotene supplementation in prevention of basal-cell and squamous-cell carcinomas of the skin: A randomised controlled trial. *Lancet* 1999; 354: 723–729.
631. Lamberg L. Dermatologists call for massive cover-up. *JAMA* 1998; 279: 1426–1427.
632. Berwick M, Begg CB, Fine JA et al. Screening for cutaneous melanoma by skin self-examination. *J Natl Cancer Inst* 1996; 88: 17–23.
633. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. IV.6.2. Cancer risk after renal transplantation. Skin cancers: Prevention and treatment. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 31–36.
634. Burton RC, Howe C, Adamson L et al. General practitioner screening for melanoma: Sensitivity, specificity, and effect of training. *J Med Screen* 1998; 5: 156–161.
635. U.S. Preventive Services Task Force. Screening for skin cancer: Recommendations and rationale. *Am J Nurs* 2002; 102: 97, 99, 101; discussion 103.
636. Hill L, Ferrini RL. Skin cancer prevention and screening: Summary of the American College of Preventive Medicine's practice policy statements. *CA Cancer J Clin* 1998; 48: 232–235.
637. Cowen EW, Billingsley EM. Awareness of skin cancer by kidney transplant patients. *J Am Acad Dermatol* 1999; 40: 697–701.
638. Aitken JF, Youl PH, Janda M et al. Increase in skin cancer screening during a community-based randomized intervention trial. *Int J Cancer* 2006; 118: 1010–1016.

## References

639. Federman DG, Concato J, Kirsner RS. Comparison of dermatologic diagnoses by primary care practitioners and dermatologists. A review of the literature. *Arch Fam Med* 1999; 8: 170–172.
640. Youl PH, Baade PD, Janda M et al. Diagnosing skin cancer in primary care: How do mainstream general practitioners compare with primary care skin cancer clinic doctors? *Med J Aust* 2007; 187: 215–220.
641. Marcil I, Stern RS. Risk of developing a subsequent non-melanoma skin cancer in patients with a history of nonmelanoma skin cancer: A critical review of the literature and meta-analysis. *Arch Dermatol* 2000; 136: 1524–1530.
642. Chen K, Craig JC, Shumack S. Oral retinoids for the prevention of skin cancers in solid organ transplant recipients: A systematic review of randomized controlled trials. *Br J Dermatol* 2005; 152: 518–523.
643. Barratt A, Irwig L, Glasziou P et al. Users' guides to the medical literature: XVII. How to use guidelines and recommendations about screening. Evidence-Based Medicine Working Group. *JAMA* 1999; 281: 2029–2034.
644. Walter LC, Covinsky KE. Cancer screening in elderly patients: A framework for individualized decision making. *JAMA* 2001; 285: 2750–2756.
645. Mandelblatt JS, Lawrence WF, Gaffikin L et al. Costs and benefits of different strategies to screen for cervical cancer in less-developed countries. *J Natl Cancer Inst* 2002; 94: 1469–1483.
646. Ozsaran AA, Ates T, Dikmen Y et al. Evaluation of the risk of cervical intraepithelial neoplasia and human papilloma virus infection in renal transplant patients receiving immunosuppressive therapy. *Eur J Gynaecol Oncol* 1999; 20: 127–130.
647. Alloub MI, Barr BB, McLaren KM et al. Human papillomavirus infection and cervical intraepithelial neoplasia in women with renal allografts. *BMJ* 1989; 298: 153–156.
648. ACOG Practice Bulletin: Clinical management guidelines for obstetrician-gynecologists. Number 45, August 2003. Cervical cytology screening (replaces committee opinion 152, March 1995). *Obstet Gynecol* 2003; 102: 417–427.
649. Wong G, Howard K, Webster A et al. The health and economic impact of cervical cancer screening and human papillomavirus vaccination in kidney transplant recipients. *Transplantation* 2009; 87: 1078–1091.
650. Agosti JM, Goldie SJ. Introducing HPV vaccine in developing countries—key challenges and issues. *N Engl J Med* 2007; 356: 1908–1910.
651. Kim JJ, Goldie SJ. Health and economic implications of HPV vaccination in the United States. *N Engl J Med* 2008; 359: 821–832.
652. Roberts MM, Alexander FE, Anderson TJ et al. Edinburgh trial of screening for breast cancer: Mortality at seven years. *Lancet* 1990; 335: 241–246.
653. Gotzsche PC, Nielsen M. Screening for breast cancer with mammography. *Cochrane Database Syst Rev* 2006; CD001877.
654. Kiberd BA, Keough-Ryan T, Clase CM. Screening for prostate, breast and colorectal cancer in renal transplant recipients. *Am J Transplant* 2003; 3: 619–625.
655. Kewenter J, Bjork S, Haglund E et al. Screening and rescreening for colorectal cancer. A controlled trial of fecal occult blood testing in 27,700 subjects. *Cancer* 1988; 62: 645–651.
656. Kronborg O, Fenger C, Olsen J et al. Randomised study of screening for colorectal cancer with faecal-occult-blood test. *Lancet* 1996; 348: 1467–1471.
657. Australian Cancer Network Colorectal Cancer Guidelines Revision Committee. Guidelines for the prevention, early detection and management of colorectal cancer. The Cancer Council Australia and Australian Cancer Network, Sydney. Chapter 3: Population screening for colorectal cancer. In, Sydney, Australia, Australian Government National Health and Medical Research Council, 2005, pp. 32–45.
658. Hardcastle JD, Chamberlain JO, Robinson MH et al. Randomised controlled trial of faecal-occult-blood screening for colorectal cancer. *Lancet* 1996; 348: 1472–1477.
659. Wong G, Howard K, Craig JC et al. Cost-effectiveness of colorectal cancer screening in renal transplant recipients. *Transplantation* 2008; 85: 532–541.
660. Ryder SD. Guidelines for the diagnosis and treatment of hepatocellular carcinoma (HCC) in adults. *Gut* 2003; 52(Suppl 3): iii1–8.
661. McMahon BJ, London T. Workshop on screening for hepatocellular carcinoma. *J Natl Cancer Inst* 1991; 83: 916–919.
662. Nguyen MH, Keeffe EB. Screening for hepatocellular carcinoma. *J Clin Gastroenterol* 2002; 35: S86–91.
663. Colli A, Fraquelli M, Casazza G et al. Accuracy of ultrasonography, spiral CT, magnetic resonance, and alpha-fetoprotein in diagnosing hepatocellular carcinoma: A systematic review. *Am J Gastroenterol* 2006; 101: 513–523.
664. Chalasani N, Said A, Ness R et al. Screening for hepatocellular carcinoma in patients with cirrhosis in the United States: Results of a national survey. *Am J Gastroenterol* 1999; 94: 2224–2229.
665. Davila JA, Weston A, Smalley W et al. Utilization of screening for hepatocellular carcinoma in the United States. *J Clin Gastroenterol* 2007; 41: 777–782.
666. Wolf DC. Screening for hepatocellular carcinoma: Is it cost-effective? *Liver Transpl* 2003; 9: 682–683.
667. Zhang BH, Yang BH, Tang ZY. Randomized controlled trial of screening for hepatocellular carcinoma. *J Cancer Res Clin Oncol* 2004; 130: 417–422.
668. Chen JG, Parkin DM, Chen QG et al. Screening for liver cancer: Results of a randomised controlled trial in Qidong, China. *J Med Screen* 2003; 10: 204–209.
669. Lee WC, Shu KH, Cheng CH et al. Long-term impact of hepatitis B, C virus infection on renal transplantation. *Am J Nephrol* 2001; 21: 300–306.
670. Goh ATH, Lu YM, Vathsala A. Immunosuppression is a risk factor for urinary tract cancers in renal transplant recipients. *Transplantation* 2008; 86 (Suppl 2S): 100.
671. Schwarz A, Vatandaslar S, Merkel S et al. Renal cell carcinoma in transplant recipients with acquired cystic kidney disease. *Clin J Am Soc Nephrol* 2007; 2: 750–756.
672. Chiang YJ, Chu SH, Liu KL et al. Kidney ultrasound is useful tool in posttransplant follow-up. *Transplant Proc* 2006; 38: 2018–2019.
673. Sarasin FP, Wong JB, Levey AS et al. Screening for acquired cystic kidney disease: A decision analytic perspective. *Kidney Int* 1995; 48: 207–219.
674. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. IV.6.1. Cancer risk after renal transplantation. Post-transplant lymphoproliferative disease (PTLD): Prevention and treatment. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 31–33, 35–36.
675. Oberbauer R, Segoloni G, Campistol JM et al. Early cyclosporine withdrawal from a sirolimus-based regimen results in better renal allograft survival and renal function at 48 months after transplantation. *Transpl Int* 2005; 18: 22–28.
676. Van Leeuwen MT, Grulich A, Webster A et al. Currency of receipt of immunosuppressive agents and other risk factors for lip cancer following renal transplantation. *Transplantation* 2008; 86 (Suppl 2S): 101.
677. Van Leeuwen MT, Vajdic CM, Webster A et al. Risk for non-Hodgkin lymphoma following renal transplantation is associated

- with currency of receipt of immunosuppression and reverts to normal on cessation. *Transplantation* 2008; 86 (Suppl 2S): 294.
678. Grulich A, McCredie MR, Van Leeuwen MT et al. Rates of human papillomavirus (HPV)-related cancers are increased in renal transplant recipients and return to low levels on cessation of immune suppression. *Transplantation* 2008; 86 (Suppl 2S): 295.
679. Otley CC, Coldiron BM, Stasko T et al. Decreased skin cancer after cessation of therapy with transplant-associated immunosuppressants. *Arch Dermatol* 2001; 137: 459–463.
680. Guba M, von Breitenbuch P, Steinbauer M et al. Rapamycin inhibits primary and metastatic tumor growth by antiangiogenesis: Involvement of vascular endothelial growth factor. *Nat Med* 2002; 8: 128–135.
681. Swinnen LJ, LeBlanc M, Grogan TM et al. Prospective study of sequential reduction in immunosuppression, interferon alpha-2B, and chemotherapy for posttransplantation lymphoproliferative disorder. *Transplantation* 2008; 86: 215–222.
682. Stallone G, Schena A, Infante B et al. Sirolimus for Kaposi's sarcoma in renal-transplant recipients. *N Engl J Med* 2005; 352: 1317–1323.
683. Campistol JM, Schena FP. Kaposi's sarcoma in renal transplant recipients—the impact of proliferation signal inhibitors. *Nephrol Dial Transplant* 2007; 22(Suppl 1): i17–22.
684. Duman S, Toz H, Asci G et al. Successful treatment of post-transplant Kaposi's sarcoma by reduction of immunosuppression. *Nephrol Dial Transplant* 2002; 17: 892–896.
- 684a. Kidney Disease: Improving Global Outcomes (KDIGO) CKD-MBD Work Group. KDIGO Clinical practice guideline for the diagnosis, evaluation, prevention, and treatment of chronic kidney disease-mineral and bone disorder (CKD-MBD). *Kidney Int* 2009; 76(Suppl 113): S1–S130.
685. Julian BA, Laskow DA, Dubovsky J et al. Rapid loss of vertebral mineral density after renal transplantation. *N Engl J Med* 1991; 325: 544–550.
686. Weisinger JR, Carlini RG, Rojas E et al. Bone disease after renal transplantation. *Clin J Am Soc Nephrol* 2006; 1: 1300–1313.
687. Monier-Faugere MC, Mawad H, Qi Q et al. High prevalence of low bone turnover and occurrence of osteomalacia after kidney transplantation. *J Am Soc Nephrol* 2000; 11: 1093–1099.
688. Moe SM, O'Neill KD, Reslerova M et al. Natural history of vascular calcification in dialysis and transplant patients. *Nephrol Dial Transplant* 2004; 19: 2387–2393.
689. Egbuna OI, Taylor JG, Bushinsky DA et al. Elevated calcium phosphate product after renal transplantation is a risk factor for graft failure. *Clin Transplant* 2007; 21: 558–566.
690. Stavroulopoulos A, Cassidy MJ, Porter CJ et al. Vitamin D status in renal transplant recipients. *Am J Transplant* 2007; 7: 2546–2552.
691. Yakupoglu HY, Corsenca A, Wahl P et al. Posttransplant acidosis and associated disorders of mineral metabolism in patients with a renal graft. *Transplantation* 2007; 84: 1151–1157.
692. Schaeffner ES, Fodinger M, Kramar R et al. Prognostic associations of serum calcium, phosphate and calcium phosphate concentration product with outcomes in kidney transplant recipients. *Transpl Int* 2007; 20: 247–255.
693. Torres A, Rodriguez AP, Concepcion MT et al. Parathyroid function in long-term renal transplant patients: Importance of pre-transplant PTH concentrations. *Nephrol Dial Transplant* 1998; 13(Suppl 3): 94–97.
694. Schmid T, Muller P, Spelsberg F. Parathyroidectomy after renal transplantation: A retrospective analysis of long-term outcome. *Nephrol Dial Transplant* 1997; 12: 2393–2396.
695. Heaf J, Tvedegaard E, Kanstrup IL et al. Hyperparathyroidism and long-term bone loss after renal transplantation. *Clin Transplant* 2003; 17: 268–274.
696. Dumoulin G, Hory B, Nguyen NU et al. No trend toward a spontaneous improvement of hyperparathyroidism and high bone turnover in normocalcemic long-term renal transplant recipients. *Am J Kidney Dis* 1997; 29: 746–753.
697. Akaberi S, Simonsen O, Lindergard B et al. Can DXA predict fractures in renal transplant patients? *Am J Transplant* 2008; 8: 2647–2651.
698. De Sevaux RG, Hoitsma AJ, Corstens FH et al. Treatment with vitamin D and calcium reduces bone loss after renal transplantation: A randomized study. *J Am Soc Nephrol* 2002; 13: 1608–1614.
699. Torres A, Garcia S, Gomez A et al. Treatment with intermittent calcitriol and calcium reduces bone loss after renal transplantation. *Kidney Int* 2004; 65: 705–712.
700. Josephson MA, Schumm LP, Chiu MY et al. Calcium and calcitriol prophylaxis attenuates posttransplant bone loss. *Transplantation* 2004; 78: 1233–1236.
701. Coco M, Glicklich D, Faugere MC et al. Prevention of bone loss in renal transplant recipients: A prospective, randomized trial of intravenous pamidronate. *J Am Soc Nephrol* 2003; 14: 2669–2676.
702. Grotz W, Nagel C, Poeschel D et al. Effect of ibandronate on bone loss and renal function after kidney transplantation. *J Am Soc Nephrol* 2001; 12: 1530–1537.
703. Cueto-Manzano AM, Konel S, Freemont AJ et al. Effect of 1,25-dihydroxyvitamin D3 and calcium carbonate on bone loss associated with long-term renal transplantation. *Am J Kidney Dis* 2000; 35: 227–236.
704. Jeffery JR, Leslie WD, Karpinski ME et al. Prevalence and treatment of decreased bone density in renal transplant recipients: A randomized prospective trial of calcitriol versus alendronate. *Transplantation* 2003; 76: 1498–1502.
705. El-Husseini AA, El-Agroudy AE, El-Sayed MF et al. Treatment of osteopenia and osteoporosis in renal transplant children and adolescents. *Pediatr Transplant* 2004; 8: 357–361.
706. El-Husseini AA, El-Agroudy AE, El-Sayed M et al. A prospective randomized study for the treatment of bone loss with vitamin D during kidney transplantation in children and adolescents. *Am J Transplant* 2004; 4: 2052–2057.
707. National Kidney Foundation. KDOQI clinical practice guidelines and clinical practice recommendations for anemia in chronic kidney disease. *Am J Kidney Dis* 2006; 47: S1–146.
708. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. IV.9.2. Haematological complications. Leukopenia. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 49.
709. Gaston RS, Julian BA, Curtis JJ. Posttransplant erythrocytosis: An enigma revisited. *Am J Kidney Dis* 1994; 24: 1–11.
710. Vlahakos DV, Marathias KP, Agroyannis B et al. Posttransplant erythrocytosis. *Kidney Int* 2003; 63: 1187–1194.
711. Van Loo A, Vanholder R, Bernaert P et al. Recombinant human erythropoietin corrects anaemia during the first weeks after renal transplantation: A randomized prospective study. *Nephrol Dial Transplant* 1996; 11: 1815–1821.
712. Chadban SJ, Baines L, Polkinghorne K et al. Anemia after kidney transplantation is not completely explained by reduced kidney function. *Am J Kidney Dis* 2007; 49: 301–309.
713. Moore LW, Smith SO, Winsett RP et al. Factors affecting erythropoietin production and correction of anemia in kidney transplant recipients. *Clin Transplant* 1994; 8: 358–364.

## References

714. A randomized clinical trial of cyclosporine in cadaveric renal transplantation. *N Engl J Med* 1983; 309: 809–815.
715. Cyclosporin in cadaveric renal transplantation: One-year follow-up of a multicentre trial. *Lancet* 1983; 2: 986–989.
716. Vanrenterghem Y, Ponticelli C, Morales JM et al. Prevalence and management of anemia in renal transplant recipients: A European survey. *Am J Transplant* 2003; 3: 835–845.
717. Pruijt JF, Haanen JB, Hollander AA et al. Azathioprine-induced pure red-cell aplasia. *Nephrol Dial Transplant* 1996; 11: 1371–1373.
718. Placebo-controlled study of mycophenolate mofetil combined with cyclosporin and corticosteroids for prevention of acute rejection. European Mycophenolate Mofetil Cooperative Study Group. *Lancet* 1995; 345: 1321–1325.
719. Engelen W, Verpooten GA, Van der Planken M et al. Four cases of red blood cell aplasia in association with the use of mycophenolate mofetil in renal transplant patients. *Clin Nephrol* 2003; 60: 119–124.
720. Faguer S, Hirsch HH, Kamar N et al. Leflunomide treatment for polyomavirus BK-associated nephropathy after kidney transplantation. *Transpl Int* 2007; 20: 962–969.
721. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. IV.9.1. Haematological complications. Anaemia. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 48–49.
722. Chiurciu C, Ruggenti P, Remuzzi G. Thrombotic microangiopathy in renal transplantation. *Ann Transplant* 2002; 7: 28–33.
723. Ponticelli C. De novo thrombotic microangiopathy. An underrated complication of renal transplantation. *Clin Nephrol* 2007; 67: 335–340.
724. Paya C, Humar A, Dominguez E et al. Efficacy and safety of valganciclovir vs. oral ganciclovir for prevention of cytomegalovirus disease in solid organ transplant recipients. *Am J Transplant* 2004; 4: 611–620.
725. Andres E, Noel E, Maloisel F. Trimethoprim-sulfamethoxazole-induced life-threatening agranulocytosis. *Arch Intern Med* 2003; 163: 1975–1976.
726. Mitsuhashi N, Fujita R, Ito S et al. Delayed-onset neutropenia in a patient receiving rituximab as treatment for refractory kidney transplantation. *Transplantation* 2005; 80: 1355.
727. Donadio C, Lucchesi A. Neutropenia after treatment of posttransplantation erythrocytosis with enalapril. *Transplantation* 2001; 72: 553–554.
728. Andersohn F, Konzen C, Garbe E. Systematic review: Agranulocytosis induced by nonchemotherapy drugs. *Ann Intern Med* 2007; 146: 657–665.
729. Mathew TH. A blinded, long-term, randomized multicenter study of mycophenolate mofetil in cadaveric renal transplantation: Results at three years. Tricontinental Mycophenolate Mofetil Renal Transplantation Study Group. *Transplantation* 1998; 65: 1450–1454.
730. Mackie F, Verran D, Horvath J et al. Severe thrombocytopenia with OKT3 use for steroid-resistant rejection in a cadaveric renal transplant recipient. *Nephrol Dial Transplant* 1996; 11: 2378.
731. Evens AM, Kwaan HC, Kaufman DB et al. TTP/HUS occurring in a simultaneous pancreas/kidney transplant recipient after clopidogrel treatment: Evidence of a nonimmunological etiology. *Transplantation* 2002; 74: 885–887.
732. Anderegg BA, Baillie GM, Lin A et al. Heparin-induced thrombocytopenia in a renal transplant recipient. *Am J Transplant* 2005; 5: 1537–1540.
733. Imoagene-Oyedeji AE, Rosas SE, Doyle AM et al. Posttransplantation anemia at 12 months in kidney recipients treated with mycophenolate mofetil: Risk factors and implications for mortality. *J Am Soc Nephrol* 2006; 17: 3240–3247.
734. Molnar MZ, Czira M, Ambrus C et al. Anemia is associated with mortality in kidney-transplanted patients—a prospective cohort study. *Am J Transplant* 2007; 7: 818–824.
735. Winkelmayer WC, Chandraker A, Alan Brookhart M et al. A prospective study of anaemia and long-term outcomes in kidney transplant recipients. *Nephrol Dial Transplant* 2006; 21: 3559–3566.
736. Van Biesen W, Vanholder R, Veys N et al. Efficacy of erythropoietin administration in the treatment of anemia immediately after renal transplantation. *Transplantation* 2005; 79: 367–368.
737. Linde T, Ekberg H, Forslund T et al. The use of pretransplant erythropoietin to normalize hemoglobin levels has no deleterious effects on renal transplantation outcome. *Transplantation* 2001; 71: 79–82.
738. European best practice guidelines for the management of anaemia in patients with chronic renal failure. Working Party for European Best Practice Guidelines for the Management of Anaemia in Patients with Chronic Renal Failure. *Nephrol Dial Transplant* 1999; 14(Suppl 5): 1–50.
739. Ojo AO, Hanson JA, Wolfe RA et al. Long-term survival in renal transplant recipients with graft function. *Kidney Int* 2000; 57: 307–313.
740. Ozer H, Armitage JO, Bennett CL et al. 2000 update of recommendations for the use of hematopoietic colony-stimulating factors: Evidence-based, clinical practice guidelines. American Society of Clinical Oncology Growth Factors Expert Panel. *J Clin Oncol* 2000; 18: 3558–3585.
741. MacDonald AS. A worldwide, phase III, randomized, controlled, safety and efficacy study of a sirolimus/cyclosporine regimen for prevention of acute rejection in recipients of primary mismatched renal allografts. *Transplantation* 2001; 71: 271–280.
742. Lowance D, Neumayer HH, Legendre CM et al. Valacyclovir for the prevention of cytomegalovirus disease after renal transplantation. International Valacyclovir Cytomegalovirus Prophylaxis Transplantation Study Group. *N Engl J Med* 1999; 340: 1462–1470.
743. Royer B, Zanetta G, Berard M et al. A neutropenia suggesting an interaction between valacyclovir and mycophenolate mofetil. *Clin Transplant* 2003; 17: 158–161.
744. Maki DG, Fox BC, Kuntz J et al. A prospective, randomized, double-blind study of trimethoprim-sulfamethoxazole for prophylaxis of infection in renal transplantation. Side effects of trimethoprim-sulfamethoxazole, interaction with cyclosporine. *J Lab Clin Med* 1992; 119: 11–24.
745. Talkoff-Rubin NE, Cosimi AB, Russell PS, et al. A controlled study of trimethoprim-sulfamethoxazole prophylaxis of urinary tract infection in renal transplant recipients. *Rev Infect Dis* 1982; 4: 614–618.
746. Imrie KR, Prince HM, Couture F et al. Effect of antimicrobial prophylaxis on hematopoietic recovery following autologous bone marrow transplantation: Ciprofloxacin versus co-trimoxazole. *Bone Marrow Transplant* 1995; 15: 267–270.
747. Razeghi E, Hadadi A, Mansor-Kiaei M et al. Clinical manifestation, laboratory findings, and the response of treatment in kidney transplant recipients with CMV infection. *Transplant Proc* 2007; 39: 993–996.
748. Eid AJ, Brown RA, Patel R et al. Parvovirus B19 infection after transplantation: A review of 98 cases. *Clin Infect Dis* 2006; 43: 40–48.
749. Nuesch R, Cynke E, Jost MC et al. Thrombocytopenia after kidney transplantation. *Am J Kidney Dis* 2000; 35: 537–538.

750. Schaub S, Dickenmann M, Cynke E et al. Prednisone-induced neutropenia after cadaveric kidney transplantation. *Nephrol Dial Transplant* 2002; 17: 1119–1121.
751. Waldman M, Kopp JB. Parvovirus-B19-associated complications in renal transplant recipients. *Nat Clin Pract Nephrol* 2007; 3: 540–550.
752. Murer L, Zacchello G, Bianchi D et al. Thrombotic microangiopathy associated with parvovirus B 19 infection after renal transplantation. *J Am Soc Nephrol* 2000; 11: 1132–1137.
753. Venkat Raman G, Sharman VL, Lee HA. Azathioprine and allopurinol: A potentially dangerous combination. *J Intern Med* 1990; 228: 69–71.
754. West KA, Anderson DR, McAlister VC et al. Alloimmune thrombocytopenia after organ transplantation. *N Engl J Med* 1999; 341: 1504–1507.
755. Bennett WM, Hansen KS, Houghton DC et al. Disseminated intravascular coagulation (DIC) in a kidney donor associated with transient recipient DIC. *Am J Transplant* 2005; 5: 412–414.
756. Moghal NE, Milford DV, Darbyshire P. Treatment of neutropenia in a renal transplant recipient with granulocyte colony-stimulating factor. *Pediatr Nephrol* 1998; 12: 14–15.
757. Peddi VR, Hariharan S, Schroeder TJ et al. Role of granulocyte colony stimulating factor (G-CSF) in reversing neutropenia in renal allograft recipients. *Clin Transplant* 1996; 10: 20–23.
758. Minguez C, Mazuecos A, Ceballos M et al. Worsening of renal function in a renal transplant patient treated with granulocyte colony-stimulating factor. *Nephrol Dial Transplant* 1995; 10: 2166–2167.
759. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. IV.9.3. Haematological complications. *Nephrol Dial Transplant* 2002; 17 (Suppl 4): 48–50.
760. Schiffer CA, Anderson KC, Bennett CL et al. Platelet transfusion for patients with cancer: Clinical practice guidelines of the American Society of Clinical Oncology. *J Clin Oncol* 2001; 19: 1519–1538.
761. Akcay A, Kanbay M, Huddam B et al. Relationship of posttransplantation erythrocytosis to hypercalcemia in renal transplant recipients. *Transplant Proc* 2005; 37: 3103–3105.
762. Einollahi B, Lessan-Pezeshki M, Nafar M et al. Erythrocytosis after renal transplantation: Review of 101 cases. *Transplant Proc* 2005; 37: 3101–3102.
763. Kurella M, Butterly DW, Smith SR. Post transplant erythrocytosis in hypercalcemic renal transplant recipients. *Am J Transplant* 2003; 3: 873–877.
764. Singh V, Sud K, Mittal BR et al. Postrenal transplant erythrocytosis: Risk factors and effectiveness of angiotensin receptor antagonists. *Transplant Proc* 2002; 34: 3191–3192.
765. Esposito R, Giammarino A, De Blasio A et al. Ramipril in postrenal transplant erythrocytosis. *J Nephrol* 2007; 20: 57–62.
766. Besarab A, Caro J, Jarrell BE et al. Dynamics of erythropoiesis following renal transplantation. *Kidney Int* 1987; 32: 526–536.
767. Wickre CG, Norman DJ, Bennison A et al. Postrenal transplant erythrocytosis: A review of 53 patients. *Kidney Int* 1983; 23: 731–737.
768. Sumrani NB, Daskalakis P, Miles AM et al. Erythrocytosis after renal transplantation. A prospective analysis. *ASAIO J* 1993; 39: 51–55.
769. Kessler M, Hestin D, Mayeux D et al. Factors predisposing to post-renal transplant erythrocytosis. A prospective matched-pair control study. *Clin Nephrol* 1996; 45: 83–89.
770. Qunibi WY, Barri Y, Devol E et al. Factors predictive of post-transplant erythrocytosis. *Kidney Int* 1991; 40: 1153–1159.
771. Gruber SA, Simmons RL, Najarian JS et al. Erythrocytosis and thromboembolic complications after renal transplantation: Results from a randomized trial of cyclosporine versus azathioprine-antilymphocyte globulin. *Transplant Proc* 1988; 20: 948–950.
772. Fang GX, Chan PC, Cheng IK et al. Haematological changes after renal transplantation: Differences between cyclosporin-A and azathioprine therapy. *Int Urol Nephrol* 1990; 22: 181–187.
773. Klaassen RJ, van Gelder T, de Meester J et al. Incidence of post-transplant erythrocytosis (PTE) in kidney graft recipients where the recipient of the contralateral kidney developed PTE. *Transplantation* 1998; 65: 1138–1139.
774. Pollak R, Maddux MS, Cohan J et al. Erythrocythemia following renal transplantation: Influence of diuretic therapy. *Clin Nephrol* 1988; 29: 119–123.
775. Glicklich D, Tellis VA, Matas AJ et al. No association between post-transplant erythrocytosis, thromboembolic events, and cyclosporine therapy. *Transplant Proc* 1989; 21: 2141–2142.
776. Kay R, Bennett WM, Thorpe J et al. Polycythemia in renal transplant patients. *Arch Intern Med* 1980; 140: 281.
777. Yildiz A, Yazici H, Cine N et al. Angiotensin converting enzyme gene polymorphism and development of post-transplant erythrocytosis. *J Nephrol* 2003; 16: 399–403.
778. Webb DB, Price KA, Hutton RD et al. Polycythaemia following renal transplantation: An association with azathioprine dosage? *Am J Nephrol* 1987; 7: 221–225.
779. Finazzi G, Barbui T. Expertise-based management in essential thrombocythemia and polycythemia vera. *Cancer J* 2007; 13: 372–376.
780. Pearson TC. The risk of thrombosis in essential thrombocythemia and polycythemia vera. *Semin Oncol* 2002; 29: 16–21.
781. Passamonti F, Rumi E, Pungolino E et al. Life expectancy and prognostic factors for survival in patients with polycythemia vera and essential thrombocythemia. *Am J Med* 2004; 117: 755–761.
782. Wu WC, Schiffner TL, Henderson WG et al. Preoperative hematocrit levels and postoperative outcomes in older patients undergoing noncardiac surgery. *JAMA* 2007; 297: 2481–2488.
783. De Stefano V, Za T, Rossi E et al. Recurrent thrombosis in patients with polycythemia vera and essential thrombocythemia: Incidence, risk factors, and effect of treatments. *Haematologica* 2008; 93: 372–380.
784. Koall W, Schabitz J, Kunsch R et al. [Thromboembolism risk factors in kidney transplant patients with secondary erythrocytosis in relation to hemorheologic aspects]. *Z Gesamte Inn Med* 1988; 43: 474–477.
785. Danovitch GM, Jamgotchian NJ, Eggena PH et al. Angiotensin-converting enzyme inhibition in the treatment of renal transplant erythrocytosis. Clinical experience and observation of mechanism. *Transplantation* 1995; 60: 132–137.
786. Ducloux D, Saint-Hillier Y, Chalopin JM. Effect of losartan on haemoglobin concentration in renal transplant recipients—a retrospective analysis. *Nephrol Dial Transplant* 1997; 12: 2683–2686.
787. Julian BA, Brantley RR, Jr., Barker CV et al. Losartan, an angiotensin II type 1 receptor antagonist, lowers hematocrit in posttransplant erythrocytosis. *J Am Soc Nephrol* 1998; 9: 1104–1108.
788. Beckingham IJ, Woodrow G, Hinwood M, et al. A randomized placebo-controlled study of enalapril in the treatment of erythrocytosis after renal transplantation. *Nephrol Dial Transplant* 1995; 10: 2316–2320.
789. Lal SM, Trivedi HS, Ross G, Jr. Long term effects of ACE inhibitors on the erythrocytosis in renal transplant recipients. *Int J Artif Organs* 1995; 18: 13–16.

## References

790. MacGregor MS, Rowe PA, Watson MA et al. Treatment of postrenal transplant erythrocytosis. Long-term efficacy and safety of angiotensin-converting enzyme inhibitors. *Nephron* 1996; 74: 517–521.
791. Montanaro D, Groupuzzo M, Boscutti G et al. Long-term therapy for postrenal transplant erythrocytosis with ACE inhibitors: Efficacy, safety and action mechanisms. *Clin Nephrol* 2000; 53(Suppl 4): 47–51.
792. Morale W, Puliati C, Veroux P et al. [Treatment of post kidney transplantation erythrocytosis (PTE) with ACE inhibitors]. *Minerva Urol Nefrol* 2002; 54: 145–148.
793. Mulhern JG, Lipkowitz GS, Braden GL et al. Association of postrenal transplant erythrocytosis and microalbuminuria: Response to angiotensin-converting enzyme inhibition. *Am J Nephrol* 1995; 15: 318–322.
794. Perazella M, McPhedran P, Kliger A et al. Enalapril treatment of posttransplant erythrocytosis: Efficacy independent of circulating erythropoietin levels. *Am J Kidney Dis* 1995; 26: 495–500.
795. Rell K, Koziak K, Jarzyo I et al. Correction of posttransplant erythrocytosis with enalapril. *Transplantation* 1994; 57: 1059–1063.
796. Yildiz A, Cine N, Akkaya V et al. Comparison of the effects of enalapril and losartan on posttransplantation erythrocytosis in renal transplant recipients: Prospective randomized study. *Transplantation* 2001; 72: 542–544.
797. Klaassen RJ, van Gelder T, Rischen-Vos J et al. Losartan, an angiotensin-II receptor antagonist, reduces hematocrits in kidney transplant recipients with posttransplant erythrocytosis. *Transplantation* 1997; 64: 780–782.
798. Bakris GL, Sauter ER, Hussey JL et al. Effects of theophylline on erythropoietin production in normal subjects and in patients with erythrocytosis after renal transplantation. *N Engl J Med* 1990; 323: 86–90.
799. Grekas D, Dioudis C, Valkouma D et al. Theophylline modulates erythrocytosis after renal transplantation. *Nephron* 1995; 70: 25–27.
800. Mazzali M, Filho GA. Use of aminophylline and enalapril in post-transplant polycythemia. *Transplantation* 1998; 65: 1461–1464.
801. Ok E, Akcicek F, Toz H et al. Comparison of the effects of enalapril and theophylline on polycythemia after renal transplantation. *Transplantation* 1995; 59: 1623–1626.
802. Trivedi H, Lal SM. A prospective, randomized, open labeled crossover trial of fosinopril and theophylline in post renal transplant erythrocytosis. *Ren Fail* 2003; 25: 77–86.
803. Vanrenterghem Y, Waer M, Christiaens MR et al. Bilateral nephrectomy of the native kidneys reduces the incidence of arterial hypertension and erythrocytosis in kidney graft recipients treated with cyclosporin. *Leuven Collaborative Group for Transplantation. Transpl Int* 1992; 5(Suppl 1): S35–37.
804. Zhang W, Doherty M, Pascual E et al. EULAR evidence based recommendations for gout. Part I: Diagnosis. Report of a task force of the Standing Committee for International Clinical Studies Including Therapeutics (ESCSIT). *Ann Rheum Dis* 2006; 65: 1301–1311.
805. Campion EW, Glynn RJ, DeLabry LO. Asymptomatic hyperuricemia. Risks and consequences in the Normative Aging Study. *Am J Med* 1987; 82: 421–426.
806. Clive DM. Renal transplant-associated hyperuricemia and gout. *J Am Soc Nephrol* 2000; 11: 974–979.
807. Mazzali M. Uric acid and transplantation. *Semin Nephrol* 2005; 25: 50–55.
808. Abbott KC, Kimmel PL, Dharnidharka V et al. New-onset gout after kidney transplantation: Incidence, risk factors and implications. *Transplantation* 2005; 80: 1383–1391.
809. Lin HY, Rocher LL, McQuillan MA et al. Cyclosporine-induced hyperuricemia and gout. *N Engl J Med* 1989; 321: 287–292.
810. West C, Carpenter BJ, Hakala TR. The incidence of gout in renal transplant recipients. *Am J Kidney Dis* 1987; 10: 369–372.
811. Gores PF, Fryd DS, Sutherland DE et al. Hyperuricemia after renal transplantation. *Am J Surg* 1988; 156: 397–400.
812. Stamp L, Ha L, Searle M et al. Gout in renal transplant recipients. *Nephrology (Carlton)* 2006; 11: 367–371.
813. Vanrenterghem Y, Meier-Kriesche H-U, Schold J et al. Levels and progression of parameters associated with metabolic syndrome by immunosuppressive regimen: Evidence from the Symphony Study. Abstract #155 (ORAL). *Am J Transplant* 2007; 7 (Suppl 12): 186.
814. Kanbay M, Akcay A, Huddam B et al. Influence of cyclosporine and tacrolimus on serum uric acid levels in stable kidney transplant recipients. *Transplant Proc* 2005; 37: 3119–3120.
815. Bumbea V, Kamar N, Ribes D et al. Long-term results in renal transplant patients with allograft dysfunction after switching from calcineurin inhibitors to sirolimus. *Nephrol Dial Transplant* 2005; 20: 2517–2523.
816. Schlitt HJ, Barkmann A, Boker KH et al. Replacement of calcineurin inhibitors with mycophenolate mofetil in liver-transplant patients with renal dysfunction: A randomised controlled study. *Lancet* 2001; 357: 587–591.
817. Edvardsson VO, Kaiser BA, Polinsky MS et al. Natural history and etiology of hyperuricemia following pediatric renal transplantation. *Pediatr Nephrol* 1995; 9: 57–60.
818. Johnson RJ, Segal MS, Srinivas T et al. Essential hypertension, progressive renal disease, and uric acid: A pathogenetic link? *J Am Soc Nephrol* 2005; 16: 1909–1919.
819. Kanellis J, Feig DI, Johnson RJ. Does asymptomatic hyperuricemia contribute to the development of renal and cardiovascular disease? An old controversy renewed. *Nephrology (Carlton)* 2004; 9: 394–399.
820. Venkateshan VS, Feingold R, Dikman S et al. Acute hyperuricemic nephropathy and renal failure after transplantation. *Nephron* 1990; 56: 317–321.
821. Siu YP, Leung KT, Tong MK et al. Use of allopurinol in slowing the progression of renal disease through its ability to lower serum uric acid level. *Am J Kidney Dis* 2006; 47: 51–59.
822. Johnson D. Uric acid. *Nephrology* 2006; 11 (Suppl S1): 25–26.
823. Kamper AL, Nielsen AH. Uricosuric effect of losartan in patients with renal transplants. *Transplantation* 2001; 72: 671–674.
824. Zhang W, Doherty M, Bardin T et al. EULAR evidence based recommendations for gout. Part II: Management. Report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCSIT). *Ann Rheum Dis* 2006; 65: 1312–1324.
825. Harris KP, Jenkins D, Walls J. Nonsteroidal antiinflammatory drugs and cyclosporine. A potentially serious adverse interaction. *Transplantation* 1988; 46: 598–599.
826. Clifford TM, Pajoumand M, Johnston TD. Celecoxib-induced nephrotoxicity in a renal transplant recipient. *Pharmacotherapy* 2005; 25: 773–777.
827. Wolf G, Porth J, Stahl RA. Acute renal failure associated with rofecoxib. *Ann Intern Med* 2000; 133: 394.
828. Montseny JJ, Meyrier A, Gherardi RK. Colchicine toxicity in patients with chronic renal failure. *Nephrol Dial Transplant* 1996; 11: 2055–2058.
829. Dupont P, Hunt I, Goldberg L et al. Colchicine myoneuropathy in a renal transplant patient. *Transpl Int* 2002; 15: 374–376.
830. Kuncl RW, Duncan G, Watson D et al. Colchicine myopathy and neuropathy. *N Engl J Med* 1987; 316: 1562–1568.

831. Jacobs F, Mamzer-Bruneel MF, Skhiri H et al. Safety of the mycophenolate mofetil-allopurinol combination in kidney transplant recipients with gout. *Transplantation* 1997; 64: 1087–1088.
832. Perez-Ruiz F, Gomez-Ullate P, Amenabar JJ et al. Long-term efficacy of hyperuricaemia treatment in renal transplant patients. *Nephrol Dial Transplant* 2003; 18: 603–606.
833. Bardin T. Current management of gout in patients unresponsive or allergic to allopurinol. *Joint Bone Spine* 2004; 71: 481–485.
834. Schaefer F. Pubertal growth and final height in chronic renal failure. In: Schäfer K (ed). *Growth and endocrine changes in children and adolescents with chronic renal failure*. S. Karger AG, Basel: Heidelberg, Germany, 1989, pp 359–371.
835. Hokken-Koelega AC, van Zaal MA, van Bergen W et al. Final height and its predictive factors after renal transplantation in childhood. *Pediatr Res* 1994; 36: 323–328.
836. Vimalachandra D, Craig JC, Cowell CT et al. Growth hormone treatment in children with chronic renal failure: A meta-analysis of randomized controlled trials. *J Pediatr* 2001; 139: 560–567.
837. Fine RN, Attie KM, Kuntze J et al. Recombinant human growth hormone in infants and young children with chronic renal insufficiency. Genentech Collaborative Study Group. *Pediatr Nephrol* 1995; 9: 451–457.
838. Haffner D, Schaefer F, Nissel R et al. Effect of growth hormone treatment on the adult height of children with chronic renal failure. German Study Group for Growth Hormone Treatment in Chronic Renal Failure. *N Engl J Med* 2000; 343: 923–930.
839. Maxwell H, Rees L. Randomised controlled trial of recombinant human growth hormone in prepubertal and pubertal renal transplant recipients. *British Association for Pediatric Nephrology. Arch Dis Child* 1998; 79: 481–487.
840. Maxwell H, Haffner D, Rees L. Catch-up growth occurs after renal transplantation in children of pubertal age. *J Pediatr* 1998; 133: 435–440.
841. Fine RN, Stablein D. Long-term use of recombinant human growth hormone in pediatric allograft recipients: A report of the NAPRTCS Transplant Registry. *Pediatr Nephrol* 2005; 20: 404–408.
842. Dharnidharka VR, Douglas VK, Hunger SP et al. Hodgkin's lymphoma after post-transplant lymphoproliferative disease in a renal transplant recipient. *Pediatr Transplant* 2004; 8: 87–90.
843. Hokken-Koelega AC, Stijnen T, de Jong RC et al. A placebo-controlled, double-blind trial of growth hormone treatment in prepubertal children after renal transplant. *Kidney Int* 1996; (Suppl 53): S128–134.
844. Guest G, Berard E, Crosnier H et al. Effects of growth hormone in short children after renal transplantation. *French Society of Pediatric Nephrology. Pediatr Nephrol* 1998; 12: 437–446.
845. Fine RN, Stablein D, Cohen AH et al. Recombinant human growth hormone post-renal transplantation in children: A randomized controlled study of the NAPRTCS. *Kidney Int* 2002; 62: 688–696.
846. Mehls O, Wilton P, Lilien M et al. Does growth hormone treatment affect the risk of post-transplant renal cancer? *Pediatr Nephrol* 2002; 17: 984–989.
847. Fine RN, De Palma JR, Lieberman E et al. Extended hemodialysis in children with chronic renal failure. *J Pediatr* 1968; 73: 706–713.
848. Fine RN, Korsch BM, Stiles Q et al. Renal homotransplantation in children. *J Pediatr* 1970; 76: 347–357.
849. Potter DE, Holliday MA, Wilson CJ et al. Alternate-day steroids in children after renal transplantation. *Transplant Proc* 1975; 7: 79–82.
850. Broyer M, Guest G, Gagnadoux MF. Growth rate in children receiving alternate-day corticosteroid treatment after kidney transplantation. *J Pediatr* 1992; 120: 721–725.
851. Jabs K, Sullivan EK, Avner ED et al. Alternate-day steroid dosing improves growth without adversely affecting graft survival or long-term graft function. A report of the North American Pediatric Renal Transplant Cooperative Study. *Transplantation* 1996; 61: 31–36.
852. Sarwal MM, Yorgin PD, Alexander S et al. Promising early outcomes with a novel, complete steroid avoidance immunosuppression protocol in pediatric renal transplantation. *Transplantation* 2001; 72: 13–21.
853. Sarwal MM, Vidhun JR, Alexander SR et al. Continued superior outcomes with modification and lengthened follow-up of a steroid-avoidance pilot with extended daclizumab induction in pediatric renal transplantation. *Transplantation* 2003; 76: 1331–1339.
854. Sarwal MM, Benfield M, Ettenger R et al. One year results of a prospective, randomized, multicenter trial of steroid avoidance in pediatric renal transplantation. *Am J Transplant* 2008; 8 (Suppl S2): 192.
855. Diemont WL, Vrugink PA, Meuleman EJ et al. Sexual dysfunction after renal replacement therapy. *Am J Kidney Dis* 2000; 35: 845–851.
856. Palmer BF. Sexual dysfunction in uremia. *J Am Soc Nephrol* 1999; 10: 1381–1388.
857. Palmer BF. Sexual dysfunction in men and women with chronic kidney disease and end-stage kidney disease. *Adv Ren Replace Ther* 2003; 10: 48–60.
858. Toorians AW, Janssen E, Laan E et al. Chronic renal failure and sexual functioning: Clinical status versus objectively assessed sexual response. *Nephrol Dial Transplant* 1997; 12: 2654–2663.
859. Ghahramani N, Behzadi A, Gholami S et al. Postrenal transplant improvement of sexual function. *Transplant Proc* 1999; 31: 3144.
860. Tsujimura A, Matsumiya K, Tsuboniwa N et al. Effect of renal transplantation on sexual function. *Arch Androl* 2002; 48: 467–474.
861. Raiz L, Davies EA, Ferguson RM. Sexual functioning following renal transplantation. *Health Soc Work* 2003; 28: 264–272.
862. Shamsa A, Motavalli SM, Aghdam B. Erectile function in end-stage renal disease before and after renal transplantation. *Transplant Proc* 2005; 37: 3087–3089.
863. Pourmand G, Emamzadeh A, Moosavi S et al. Does renal transplantation improve erectile dysfunction in hemodialysed patients? What is the role of associated factors? *Transplant Proc* 2007; 39: 1029–1032.
864. Zhang Y, Guan DL, Ou TW et al. Sildenafil citrate treatment for erectile dysfunction after kidney transplantation. *Transplant Proc* 2005; 37: 2100–2103.
865. El-Bahnasawy MS, El-Assmy A, El-Sawy E et al. Critical evaluation of the factors influencing erectile function after renal transplantation. *Int J Impot Res* 2004; 16: 521–526.
866. Jurgensen JS, Ulrich C, Horstrup JH et al. Sexual dysfunction after simultaneous pancreas-kidney transplantation. *Transplant Proc* 2008; 40: 927–930.
867. Demir E, Balal M, Paydas S et al. Efficacy and safety of vardenafil in renal transplant recipients with erectile dysfunction. *Transplant Proc* 2006; 38: 1379–1381.
868. Sharma RK, Prasad N, Gupta A et al. Treatment of erectile dysfunction with sildenafil citrate in renal allograft recipients: A randomized, double-blind, placebo-controlled, crossover trial. *Am J Kidney Dis* 2006; 48: 128–133.

## References

869. Zerner J, Doil KL, Drewry J et al. Intrauterine contraceptive device failures in renal transplant patients. *J Reprod Med* 1981; 26: 99–102.
870. Reddy SS, Holley JL. Management of the pregnant chronic dialysis patient. *Adv Chronic Kidney Dis* 2007; 14: 146–155.
871. Davison JM. Dialysis, transplantation, and pregnancy. *Am J Kidney Dis* 1991; 17: 127–132.
872. Kim HW, Seok HJ, Kim TH et al. The experience of pregnancy after renal transplantation: Pregnancies even within postoperative 1 year may be tolerable. *Transplantation* 2008; 85: 1412–1419.
873. Sibanda N, Briggs JD, Davison JM et al. Pregnancy after organ transplantation: A report from the UK Transplant pregnancy registry. *Transplantation* 2007; 83: 1301–1307.
874. Rizzoni G, Ehrlich JH, Broyer M et al. Successful pregnancies in women on renal replacement therapy: Report from the EDTA Registry. *Nephrol Dial Transplant* 1992; 7: 279–287.
875. Sturgiss SN, Davison JM. Effect of pregnancy on long-term function of renal allografts. *Am J Kidney Dis* 1992; 19: 167–172.
876. Rahamimov R, Ben-Haroush A, Wittenberg C et al. Pregnancy in renal transplant recipients: Long-term effect on patient and graft survival. A single-center experience. *Transplantation* 2006; 81: 660–664.
877. Grimer M. The CARL guidelines. Calcineurin inhibitors in renal transplantation: Pregnancy, lactation and calcineurin inhibitors. *Nephrology (Carlton)* 2007; 12(Suppl 1): S98-S105.
878. Imbasciati E, Gregorini G, Cabiddu G et al. Pregnancy in CKD stages 3 to 5: Fetal and maternal outcomes. *Am J Kidney Dis* 2007; 49: 753–762.
879. McKay DB, Josephson MA, Armenti VT et al. Reproduction and transplantation: Report on the AST Consensus Conference on Reproductive Issues and Transplantation. *Am J Transplant* 2005; 5: 1592–1599.
880. Zalunardo N, Johnston O, Rose C et al. Women who become pregnant in the first two years after kidney transplantation have a higher risk of graft loss. Abstract 76. *Am J Transplant* 2008; 8: 199.
881. Armenti VT, Radomski JS, Moritz MJ et al. Report from the National Transplantation Pregnancy Registry (NTPR): Outcomes of pregnancy after transplantation. *Clin Transpl* 2004: 103–114.
882. McKay DB, Josephson MA. Pregnancy in recipients of solid organs—effects on mother and child. *N Engl J Med* 2006; 354: 1281–1293.
883. Pergola PE, Kancharla A, Riley DJ. Kidney transplantation during the first trimester of pregnancy: Immunosuppression with mycophenolate mofetil, tacrolimus, and prednisone. *Transplantation* 2001; 71: 994–997.
884. Le Ray C, Coulomb A, Elefant E et al. Mycophenolate mofetil in pregnancy after renal transplantation: A case of major fetal malformations. *Obstet Gynecol* 2004; 103: 1091–1094.
885. Sifontis NM, Coscia LA, Constantinescu S et al. Pregnancy outcomes in solid organ transplant recipients with exposure to mycophenolate mofetil or sirolimus. *Transplantation* 2006; 82: 1698–1702.
886. European best practice guidelines for renal transplantation. Section IV: Long-term management of the transplant recipient. *Nephrol Dial Transplant* 2002; 17(Suppl 4): 1–67.
887. Rapamune package insert. 2003.
888. Jankowska I, Oldakowska-Jedynak U, Jabiry-Zieniewicz Z et al. Absence of teratogenicity of sirolimus used during early pregnancy in a liver transplant recipient. *Transplant Proc* 2004; 36: 3232–3233.
889. Guardia O, Rial Mdel C, Casadei D. Pregnancy under sirolimus-based immunosuppression. *Transplantation* 2006; 81: 636.
890. American Academy of Pediatrics Committee on Drugs: The transfer of drugs and other chemicals into human milk. *Pediatrics* 1994; 93: 137–150.
891. Coulam CB, Moyer TP, Jiang NS et al. Breast-feeding after renal transplantation. *Transplant Proc* 1982; 14: 605–609.
892. Holdsworth S, Atkins RC, de Kretser DM. The pituitary-testicular axis in men with chronic renal failure. *N Engl J Med* 1977; 296: 1245–1249.
893. Haberman J, Karwa G, Greenstein SM et al. Male fertility in cyclosporine-treated renal transplant patients. *J Urol* 1991; 145: 294–296.
894. Aulakh BS, Singh SK, Khanna S et al. Impact of renal transplantation on gonadal function in male uremic patients—our experience. *Transplant Proc* 2003; 35: 316.
895. De Celis R, Pedron-Nuevo N. Male fertility of kidney transplant patients with one to ten years of evolution using a conventional immunosuppressive regimen. *Arch Androl* 1999; 42: 9–20.
896. Handelsman DJ, Ralec VL, Tiller DJ et al. Testicular function after renal transplantation. *Clin Endocrinol (Oxf)* 1981; 14: 527–538.
897. Handelsman DJ, McDowell IF, Caterson ID et al. Testicular function after renal transplantation: Comparison of cyclosporin A with azathioprine and prednisone combination regimens. *Clin Nephrol* 1984; 22: 144–148.
898. Holdsworth SR, de Kretser DM, Atkins RC. A comparison of hemodialysis and transplantation in reversing the uremic disturbance of male reproductive function. *Clin Nephrol* 1978; 10: 146–150.
899. Eid MM, Abdel-Hamid IA, Sobh MA et al. Assessment of sperm motion characteristics in infertile renal transplant recipients using computerized analysis. *Int J Androl* 1996; 19: 338–344.
900. Rodrigues Netto N, Jr., Pecoraro G, Sabbaga E et al. Spermatogenesis before and after renal transplant. *Int J Fertil* 1980; 25: 131–133.
901. Bererhi L, Flamant M, Martinez F et al. Rapamycin-induced oligospermia. *Transplantation* 2003; 76: 885–886.
902. Huyghe E, Zairi A, Nohra J et al. Gonadal impact of target of rapamycin inhibitors (sirolimus and everolimus) in male patients: An overview. *Transpl Int* 2007; 20: 305–311.
903. Skrzypek J, Krause W. Azoospermia in a renal transplant recipient during sirolimus (rapamycin) treatment. *Andrologia* 2007; 39: 198–199.
904. Zuber J, Anglicheau D, Elie C et al. Sirolimus may reduce fertility in male renal transplant recipients. *Am J Transplant* 2008; 8: 1471–1479.
905. Feng LX, Ravindranath N, Dym M. Stem cell factor/c-kit up-regulates cyclin D3 and promotes cell cycle progression via the phosphoinositide 3-kinase/p70 S6 kinase pathway in spermatogonia. *J Biol Chem* 2000; 275: 25572–25576.
906. Armenti VT, Daller JA, Constantinescu S et al. Report from the National Transplantation Pregnancy Registry: Outcomes of pregnancy after transplantation. *Clin Transpl* 2006: 57–70.
907. Cukor D, Cohen SD, Peterson RA et al. Psychosocial aspects of chronic disease: ESRD as a paradigmatic illness. *J Am Soc Nephrol* 2007; 18: 3042–3055.
908. Kimmel PL, Cukor D, Cohen SD et al. Depression in end-stage renal disease patients: A critical review. *Adv Chronic Kidney Dis* 2007; 14: 328–334.
909. Boulware LE, Liu Y, Fink NE et al. Temporal relation among depression symptoms, cardiovascular disease events, and mortality in end-stage renal disease: Contribution of reverse causality. *Clin J Am Soc Nephrol* 2006; 1: 496–504.
910. Craven JL, Rodin GM, Littlefield C. The Beck Depression Inventory as a screening device for major depression in renal dialysis patients. *Int J Psychiatry Med* 1988; 18: 365–374.



911. Hedayati SS, Bosworth HB, Kuchibhatla M et al. The predictive value of self-report scales compared with physician diagnosis of depression in hemodialysis patients. *Kidney Int* 2006; 69: 1662–1668.
912. Lopes AA, Albert JM, Young EW et al. Screening for depression in hemodialysis patients: Associations with diagnosis, treatment, and outcomes in the DOPPS. *Kidney Int* 2004; 66: 2047–2053.
913. Watnick S, Kirwin P, Mahnensmith R et al. The prevalence and treatment of depression among patients starting dialysis. *Am J Kidney Dis* 2003; 41: 105–110.
914. Joseph JT, Baines LS, Morris MC et al. Quality of life after kidney and pancreas transplantation: A review. *Am J Kidney Dis* 2003; 42: 431–445.
915. Cameron JI, Whiteside C, Katz J et al. Differences in quality of life across renal replacement therapies: A meta-analytic comparison. *Am J Kidney Dis* 2000; 35: 629–637.
916. Karam VH, Gasquet I, Delvart V et al. Quality of life in adult survivors beyond 10 years after liver, kidney, and heart transplantation. *Transplantation* 2003; 76: 1699–1704.
917. Sayin A, Mutluay R, Sindel S. Quality of life in hemodialysis, peritoneal dialysis, and transplantation patients. *Transplant Proc* 2007; 39: 3047–3053.
918. Akman B, Ozdemir FN, Sezer S et al. Depression levels before and after renal transplantation. *Transplant Proc* 2004; 36: 111–113.
919. Virzi A, Signorelli MS, Veroux M et al. Depression and quality of life in living related renal transplantation. *Transplant Proc* 2007; 39: 1791–1793.
920. Karaminia R, Tavallai SA, Lorgard-Dezfuli-Nejad M et al. Anxiety and depression: A comparison between renal transplant recipients and hemodialysis patients. *Transplant Proc* 2007; 39: 1082–1084.
921. Wallace J, Yorgin PD, Carolan R et al. The use of art therapy to detect depression and post-traumatic stress disorder in pediatric and young adult renal transplant recipients. *Pediatr Transplant* 2004; 8: 52–59.
922. Noohi S, Khaghani-Zadeh M, Javadipour M et al. Anxiety and depression are correlated with higher morbidity after kidney transplantation. *Transplant Proc* 2007; 39: 1074–1078.
923. Perez-San-Gregorio MA, Martin-Rodriguez A, Diaz-Dominguez R et al. The influence of posttransplant anxiety on the long-term health of patients. *Transplant Proc* 2006; 38: 2406–2408.
924. Bullington P, Pawola L, Walker R et al. Identification of medication non-adherence factors in adolescent transplant patients: The patient's viewpoint. *Pediatr Transplant* 2007; 11: 914–921.
925. Abbott KC, Agodoa LY, O'Malley PG. Hospitalized psychoses after renal transplantation in the United States: Incidence, risk factors, and prognosis. *J Am Soc Nephrol* 2003; 14: 1628–1635.
926. Dobbels F, Skeans MA, Snyder JJ et al. Depressive disorder in renal transplantation: An analysis of Medicare claims. *Am J Kidney Dis* 2008; 51: 819–828.
927. Baines LS, Joseph JT, Jindal RM. Emotional issues after kidney transplantation: A prospective psychotherapeutic study. *Clin Transplant* 2002; 16: 455–460.
928. Baines LS, Joseph JT, Jindal RM. Prospective randomized study of individual and group psychotherapy versus controls in recipients of renal transplants. *Kidney Int* 2004; 65: 1937–1942.
929. Vella JP, Sayegh MH. Interactions between cyclosporine and newer antidepressant medications. *Am J Kidney Dis* 1998; 31: 320–323.
930. Whooley MA, Avins AL, Miranda J et al. Case-finding instruments for depression. Two questions are as good as many. *J Gen Intern Med* 1997; 12: 439–445.
931. Counsell C. Formulating questions and locating primary studies for inclusion in systematic reviews. *Ann Intern Med* 1997; 127: 380–387.
932. Atkins D, Best D, Briss PA et al. Grading quality of evidence and strength of recommendations. *BMJ* 2004; 328: 1490–1494.
933. Uhlig K, Macleod A, Craig J et al. Grading evidence and recommendations for clinical practice guidelines in nephrology. A position statement from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney Int* 2006; 70: 2058–2065.
934. Guyatt GH, Oxman AD, Kunz R et al. Going from evidence to recommendations. *BMJ* 2008; 336: 1049–1051.
935. Farquhar C, Kunz R: Grading and the GRADE instrument. In *Second Guidelines International Network (G-I-N) Conference*, Wellington, New Zealand, 2004.
936. Development and validation of an international appraisal instrument for assessing the quality of clinical practice guidelines: The AGREE project. *Qual Saf Health Care* 2003; 12: 18–23.
937. Shiffman RN, Shekelle P, Overhage JM et al. Standardized reporting of clinical practice guidelines: A proposal from the Conference on Guideline Standardization. *Ann Intern Med* 2003; 139: 493–498.