

Patrick Royston: List of publications

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1. Durrant ML, **Royston JP** (1979) The short-term effects of energy density on salivation, hunger and appetite in obese subjects. *International Journal of Obesity* **3**: 335-347.
2. Hytten FE, **Royston JP** (1979) Who wants to sit on the GMC? *British Medical Journal* **2**: 581-582.
3. McKeran RO, Halliday D, Purkiss P, **Royston JP** (1979) 3-methylhistidine excretion as an index of myofibrillar catabolism in neuromuscular disease. *Journal of Neurology, Neurosurgery and Psychiatry* **42**: 536-541.
4. McKeran RO, **Royston JP**, Ward P (1979) Two populations of Type I fibres in striated muscle from a case of neutral lipid storage disease. *Journal of the Neurological Sciences* **43**: 1-12.
5. Penfold P, Drury L, Lewis L, **Royston JP**, Hytten FE (1979) Case note descriptions of the placenta—are they worthwhile? *British Journal of Obstetrics and Gynaecology* **86**: 337-339.
6. Abrams RM, Humphrey SJE, **Royston JP**, Wolff HS (1980) Thermal features of the female axilla. *Journal of Applied Physiology* **49(6)**: 1042-1046.
7. Dolby JM, Stephens S, **Royston JP** (1980) The effect of freezing and pasteurising bovine milk on its ability to protect neonatal guinea pigs against colonisation of the small intestine by Escheria Coli. *Journal of Experimental Pathology* **61**: 8-15.
8. Durrant ML, Garrow JS, **Royston JP**, Stalley SF, Sunkin S, Warwick PM (1980) Factors influencing the composition of weight lost by obese patients on a reducing diet. *British Journal of Nutrition* **44**: 275-285.
9. Durrant ML, **Royston JP** (1980) The long-term effect of energy intake on salivation, hunger and appetite ratings and estimates of energy intake in obese patients. *Psychomatic Medicine* **42**: 385-395.
10. **Royston JP**, Abrams RM (1980) An objective method of detecting the shift in basal body temperature in women. *Biometrics* **36**: 217-224.
11. **Royston JP**, Abrams RM, Higgins MP, Flynn AM (1980) The adjustment of basal body temperature measurements to allow for time of waking. *British Journal of Obstetrics and Gynaecology* **87**: 1123-1127.
12. Tellez M, Reeve J, **Royston JP**, Veall N, Wootton R (1980) The reproducibility of double-isotope deconvolution measurements of intestinal calcium absorption. *Clinical Science* **59**: 169-172.
13. Abrams RM, **Royston JP** (1981) Some properties of rectum, vagina/axilla as sites for basal body temperature measurement. *Fertility and Sterility* **35**: 313-316.
14. Flecknell PA, Wootton R, John M, **Royston JP** (1981) Pathological features of intra-uterine growth retardation in the piglet: differential effects on organ weights. *Diagnostic Histopathology* **4**: 295-298.
15. Flecknell PA, Wootton R, John M, **Royston JP** (1981) Steady state glucose kinetics and their relation to plasma glucose concentration in the premature and full term neonatal piglet. *Canadian Journal of Physiology and Pharmacology* **59**: 1069-1072.
16. Garrow JS, Durrant ML, Blaza S, Wilkins D, **Royston JP**, Sunkin S (1981) The effect of meal frequency and protein concentration on the composition of the weight lost by obese women. *British Journal of Nutrition* **45**: 5-15.
17. Jordan C, Lehane JR, Jones JG, Altman DG, **Royston JP** (1981) Specific conductance using forced airflow oscillation in mechanically ventilated human subjects. *Journal of Applied Physiology* **51**: 715-724.
18. O'Connor MC, Arias E, **Royston JP**, Dalrymple IJ (1981) The merits of special antenatal care for twin pregnancies. *British journal of Obstetrics and Gynaecology* **88**: 222-230.
19. **Royston JP** (1981) Fitting with lognormal or power-normal errors. *GLIM Newsletter No 5*: 21-26.

20. Durrant ML, **Royston JP**, Wloch RT (1982) Effect of exercise on energy intake and eating patterns in lean and obese humans. *Physiology and Behaviour* **29**: 449-454.
21. Durrant ML, **Royston JP**, Wloch RT, Garrow JS (1982) The effect of covert changes in energy density of preloads on subsequent ad libitum energy intake in lean and obese human subjects. *Human Nutrition, Clinical Nutrition* **36C**: 297-306.
22. Isenberg DA, Meyrick-Thomas D, Snaith ML, McKeran RO, **Royston JP** (1982) A study of migraine in systemic lupus erythmatosus. *Annals of the Rheumatic Diseases* **41**: 30-32.
23. **Royston JP** (1982) Algorithm AS177. Expected normal order statistics (exact and approximate). *Applied Statistics* **31**: 161-165.
24. **Royston JP** (1982) Algorithm AS181. The *W* test for normality. *Applied Statistics* **31**: 176-180.
25. **Royston JP** (1982) An extension of Shapiro and Wilk's *W* test for normality to large samples. *Applied Statistics* **31**: 115-124.
26. **Royston JP** (1982) Basal body temperature, ovulation and risk of conception, with special reference to the lifetimes of sperm and egg. *Biometrics* **38**: 397-406.
27. **Royston JP**, Abrams RM (1982) The choice between rectum and mouth as sites for basal body temperature measurements. *British Journal of Family Planning* **7**: 106-110.
28. **Royston JP**, Flecknell PA, Wootton R (1982) New evidence that the intra-uterine growth retarded piglet is a member of a discrete subpopulation. *Biology of the Neonate* **42**: 100-104.
29. Jeffrey I, **Royston JP**, Sowter C, Slavin G, Price AB, Pomerance A, Goolamali S, Pinto D (1983) Prognostic value of tumour thickness in cutaneous malignant melanoma. *Journal of Clinical Pathology* **36**: 51-56.
30. Jones JG, Minty BD, **Royston D**, **Royston JP** (1983) Carboxyhaemoglobin and pulmonary epithelial permeability in man. *Thorax* **38**: 129-133.
31. Morgan DML, Illei G, **Royston JP** (1983) Serum polyamine oxidase activity in normal pregnancy. *British Journal of Obstetrics and Gynaecology* **90**: 1194-1196.
32. **Royston JP** (1983) A simple method for evaluating the Shapiro-Francia *W'* test of non-normality. *Statistician* **32**: 297-300.
33. **Royston JP** (1983) Documenting GLIM-3 macros. *GLIM Newsletter* **No. 6**: 62-64.
34. **Royston JP** (1983) Some techniques for assessing multivariate normality based on the Shapiro-Wilk *W*. *Applied Statistics* **32**: 121-133.
35. Sharer N, Nunn JF, **Royston JP**, Chanarin I (1983) Effects of chronic exposure to nitrous oxide on methionine synthase activity. *British Journal of Anaesthesia* **55**: 693-701.
36. Wootton R, Flecknell PA, **Royston JP**, John M (1983) Intrauterine growth retardation detected in several species by non-normal birthweight distributions. *Journal of Reproduction and Fertility* **69**: 659-663.
37. Wootton R, Flecknell PA, **Royston JP**, John M (1983) The tissue:blood partition coefficient of iodoantipyrine in pig brain and its change with age. *Canadian Journal of Physiology and Pharmacology* **61**: 595-598.
38. World Health Organization (1983) Temporal relationships between indices of the fertile period. *Fertility and Sterility* **39**: 647-655.
39. **Royston JP**, Humphrey SJE, Flynn AM, Marshall J, Zarzosa-Perez A (1984) An automatic electronic device (Rite Time) to detect the onset of the infertile period by basal body temperature measurements. *British Journal of Obstetrics and Gynaecology* **91**: 565-573.

40. Caruana MP, Al-Khawaja I, **Royston P**, Raftery EB (1985) The effects of long-acting pinacidil on intra-arterial blood pressure. *British Journal of Clinical Pharmacology* **20**: 140-143.
41. **Royston JP** (1985) Algorithm AS209. The distribution function of skewness and kurtosis. *Applied Statistics* **34**: 87-94.
42. Schiphorst LEM, Collins WP, **Royston JP** (1985) An estrogen test to determine the times of potential fertility in women. *Fertility and Sterility* **44**: 328-334.
43. Wedzicha JA, Cotes PM, Empey DW, Newland AC, **Royston JP**, Tam RC (1985) Serum immunoreactive erythropoietin in hypoxic lung disease with and without polycythaemia. *Clinical Science* **69**: 413-422.
44. World Health Organization (1985) A prospective multicentre study to develop universal immunochemical tests for predicting the fertile period in women. *International Journal of Fertility* **30**: 18-30.
45. Gilbert JM, Setchell KDR, Lawson AM, **Royston JP**, Worthington J, Kark A (1986) Detailed faecal bile acid profile: a diagnostic test for colorectal cancer? *European Journal of Clinical Oncology* **12**: 359-365.
46. Rosenberg W, Parkes J, Jenkins A, Denham MJ, **Royston JP**, Sullens CM, O'Neill C, Dobbs SM (1986) Making a rehabilitation hospital for the elderly work. *Health Trends* **18**: 66-71.
47. **Royston JP** (1986) A remark on Algorithm AS181. The *W* test for normality. *Applied Statistics* **35**: 232-234.
48. **Royston JP**, Abrams RM (1986) Prospective recognition of body temperature shifts by gynaecologists and statisticians. *British Journal of Family Planning* **12**: 2-8.
49. Chapman AJ, Wilson MD, Obhrai M, Sawers RS, Lynch SS, **Royston JP**, Clayton RN (1987) Effect of bromocriptine on LH pulsatility in the polycystic ovary syndrome. *Clinical Endocrinology* **27**: 571-580.
50. Clayton RN, **Royston JP**, Chapman J, Wilson MD, Obhrai M, Sawers RS, Lynch SS (1987) Is changing hypothalamic activity important for control of ovulation? *British Medical Journal* **295**: 7-12.
51. Dobbs RJ, **Royston JP**, O'Neill CJA, Deshmukh AA, Nicholson PW, Denham MJ, Dobbs SM (1987) Prescribing digoxin in geriatric units: the unexplained variability in dosage requirements. *European Journal of Clinical Pharmacology* **32**: 611-614.
52. Flecknell PA, Wootton R, **Royston JP**, John M (1987) Glucose homeostasis in the newborn: effects of an intravenous glucose infusion in normal and intra-uterine growth-retarded neonatal piglets. *Biology of the Neonate* **52**: 205-215.
53. Kirk JC, Atkinson GA, **Royston JP**, O'Neill CJA, Denham MJ, Dobbs SM (1987) Performance testing in rehabilitation: influence of context and cognitive function on mobility. *Age and Ageing* **1**: 193-196.
54. Leeman AJ, O'Neill CJA, Nicholson PW, Deshmukh AA, Denham MJ, **Royston JP**, Dobbs RJ, Dobbs SM (1987) Parkinson's Disease in the elderly: response to and optimal spacing of night time dosing with levodopa. *British Journal of Clinical Pharmacology* **24**: 637-643.
55. Meghee S, Mooney C, Deshmukh AA, O'Neill CJA, Bowes S, **Royston JP**, Dobbs SM, Dobbs RJ (1987) Prescribing digoxin in geriatric units: exercise and redistribution of drug. *Journal of Clinical Pharmacy and Therapeutics* **12**: 415-418.
56. **Royston JP** (1987) Remark on AS190: probabilities and upper quantiles for the studentized range. *Applied Statistics* **36**: 1-119.
57. **Royston JP**, Webb JB, Griffiths P, Hill ID (1987) The construction and description of algorithms. *Applied Statistics* **36**: 1-94.
58. Warburton A, **Royston JP**, O'Neill CJA, Nicholson PW, Jee RB, Dobbs SM, Dobbs RJ, Denham MJ (1987) A quinine a day keeps the leg cramps away? *British Journal of Clinical Pharmacology* **23**: 459-465.

59. Altman DG, **Royston JP** (1988) The hidden effect of time. *Statistics in Medicine* **7**: 629-637.
60. Flynn AM, McCarthy AM, Docker M, **Royston JP** (1988) The temporal relationship between vaginal fluid volumes obtained with the Rovumeter vaginal aspirator and the fertile phase of the cycle. *Human Reproduction* **3**: 201-205.
61. Flynn AM, **Royston JP**, McCarthy A (1988) Detection of the fertile phase from changes in cervico-vaginal fluid volume. *International Journal of Fertility Supplement*: 17-23.
62. Ismail M, Arshat H, Pulcrano J, **Royston P**, Spieler J (1988) An evaluation of the Bioself 110 fertility indicator. *Contraception* **39**: 53-71.
63. Nicholson PW, Leeman AL, O'Neill CJA, Dobbs SM, Deshmukh AA, **Royston JP**, Dobbs RJ (1988) Pressure sores: effect of Parkinson's Disease and cognitive function on spontaneous movement in bed. *Age and Ageing* **17**: 111-115.
64. O'Neill CJA, Bowes SG, Sullens CM, **Royston JP**, Hunt JB, Denham MJ, Dobbs RJ, Dobbs SM (1988) Evaluation of the safety of enalapril in the treatment of heart failure in the very old. *European Journal of Clinical Pharmacology* **35**: 143-150.
65. Pearson JM, Campbell S, Cohen-Overbeek T, Hackett G, Hernandez J, **Royston P** (1988) Reference ranges and sources of variation for indices of pulsed Doppler flow velocity waveforms from the uteroplacental and fetal circulation. *British Journal of Obstetrics and Gynaecology* **95**: 248-256.
66. **Royston JP**, Altman DG (1988) Algorithm AS 235. Number Tally. *Applied Statistics* **37**: 285-290.
67. Von Fragstein M, Flynn A, **Royston JP** (1988) Analysis of a representative sample of natural family planning users in England and Wales 1984-1985. *International Journal of Fertility Supplement*: 70-77.
68. Wald NJ, Cuckle HS, Densem JW, Nanchahal K, **Royston P**, Chard T, Haddow JE, Knight GJ, Palomaki GE, Canick JA (1988) Maternal serum screening for Down's syndrome in early pregnancy. *British Medical Journal* **297**: 883-887.
69. Aitman TJ, Palmer RG, Loftus J, Ansell BM, **Royston JP**, Teale JD, Clayton RN (1989) Serum IGF-1 levels and growth failure in juvenile chronic arthritis. *Clinical and Experimental Rheumatology* **7**: 557-561.
70. Bhan V, Amso N, Whitehead MI, Campbell S, **Royston JP**, Collins WP (1989) Characteristics of persistent ovarian masses in asymptomatic women. *British Journal of Obstetrics and Gynaecology* **96**: 1384-1391.
71. Campbell S, Bhan V, **Royston P**, Whitehead MI, Collins WP (1989) Transabdominal ultrasound screening for early ovarian cancer. *British Medical Journal* **299**: 1363-1367.
72. Cotes PM, Pippard MJ, Reid CDL, Winearls CG, Oliver DO, **Royston JP** (1989) Characterization of the anaemia of chronic renal failure and the mode of its correction by erythropoietin (r-HuEPO). An investigation of the pharmacokinetics of intravenous r-HuEPO and its effect on erythrokinetics. *Quarterly Journal of Medicine (new series)* **70**: 113-137.
73. Cuckle H, Wald N, Quinn J, **Royston P**, Butler L (1989) Ultrasound femur length measurement in the screening for Down's syndrome. *British Journal of Obstetrics and Gynaecology* **96**: 1373-1378.
74. **Royston JP** (1989) Correcting the Shapiro-Wilk for ties. *Journal of Statistical Computation and Simulation* **31**: 237-249.
75. **Royston JP** (1989) The statistical analysis of pulsatile hormone secretion. *Clinical Endocrinology* **30**: 201-210.
76. Bland JM, Altman DG, **Royston JP** (1990) Statisticians in Medical Schools. *Journal of the Royal College of Physicians of London* **24**: 85-86.

77. Bourne TH, Campbell S, Whitehead MI, **Royston P**, Steer CV, Collins WP (1990) The detection of endometrial cancer in postmenopausal women by transvaginal ultrasonography and colour flow imaging. *British Medical Journal* **301**: 369-369.
78. Campbell S, **Royston P**, Bhan V, Whitehead MI, Collins WP (1990) Novel screening strategies for early ovarian cancer by transabdominal ultrasonography. *British Journal of Obstetrics and Gynaecology* **97**: 304-311.
79. Cuckle HS, Alberman E, Wald NJ, **Royston P**, Knight G (1990) Maternal smoking habits and Down's syndrome. *Prenatal Diagnosis* **10**: 561-567.
80. Cuckle HS, Wald NJ, Densem JW, **Royston P**, Knight GJ, Haddow JE, Palomaki GE, Canick JA (1990) The effect of smoking in pregnancy on maternal serum alpha-fetoprotein, unconjugated oestriol, human chorionic gonadotrophin and dehydroepiandrosterone sulphate levels. *British Journal of Obstetrics and Gynaecology* **97**: 272-274.
81. Karanth SS, Springall DR, Kar S, Gibson SJ, **Royston JP**, Banerjee DK, Polak JM (1990) Time related decrease of substance P and CGRP in central and peripheral projections of sensory neurones in Mycobacterium Leprae infected nude mice: a model for lepromatous leprosy in man. *Journal of Pathology* **161**: 335-345.
82. Matthews JNS, Altman DG, Campbell JM, **Royston P** (1990) The analysis of serial measurements in medical research. *British Medical Journal* **300**: 230-235.
83. Bourne TH, Campbell S, Steer CV, **Royston P**, Whitehead MI, Collins WP (1991) Detection of endometrial cancer by transvaginal ultrasonography with color flow imaging and blood flow analysis: a preliminary report. *Gynecological Oncology* **40**: 253-259.
84. Bourne TH, Whitehead MI, Campbell S, **Royston P**, Collins WP (1991) Ultrasound screening for familial ovarian cancer. *Gynecological Oncology* **43**: 92-97.
85. Flynn AM, James P, Collins WP, **Royston P** (1991) Symptothermal and hormonal markers of potential fertility in climacteric women. *American Journal of Obstetrics and Gynecology* **165**: 1987-1989.
86. Flynn A, Pulcrano J, **Royston P**, Spieler J (1991) The evaluation of the Bioself 110 electronic fertility indicator as a contraceptive aid. *Contraception* **44**: 125-139.
87. **Royston P** (1991) A response to sg3.3: comment on tests of normality. *Stata Technical Bulletin* **4**: 8-9.
88. **Royston P** (1991) Comment on sg3.4 and an improved D'Agostino test. *Stata Technical Bulletin* **3**: 23-24.
89. **Royston P** (1991) Constructing time-specific reference ranges. *Statistics in Medicine* **10**: 675-690.
90. **Royston P** (1991) Estimating departure from normality. *Statistics in Medicine* **10**: 1283-1293.
91. **Royston P** (1991) Identifying the fertile phase of the human menstrual cycle. *Statistics in Medicine* **10**: 221-240.
92. **Royston P** (1991) Lowess smoothing. *Stata Technical Bulletin* **3**: 7-9.
93. **Royston P** (1991) Tests for departure from normality. *Stata Technical Bulletin* **2**: 16-17.
94. **Royston P**, Matthews JNS (1991) The estimation of reference ranges from normal samples. *Statistics in Medicine* **10**: 691-695.
95. Murdoch Eaton DG, Wertheim D, Oozeer R, Dubowitz LMS, Dubowitz V, **Royston P** (1992) The effect of pethidine on the neonatal EEG. *Developmental Medicine and Child Neurology* **34**: 155-163.
96. Midgley JP, Modi N, Littleton P, Carter N, **Royston P**, Smith A (1992) Plasma atrial natriuretic peptide, urinary cyclic guanosine monophosphate and sodium excretion during postnatal adaptation in infants below 34 weeks gestation. *Early Human Development* **28**: 145-154.
97. **Royston P** (1992) Approximating the Shapiro-Wilk *W* test for non-normality. *Statistics and Computing* **2**: 117-119.

98. **Royston P** (1992) Centile estimation command. *Stata Technical Bulletin* **8**: 12-15.
99. **Royston P** (1992) Estimation, reference ranges and goodness-of-fit for the three-parameter lognormal distribution. *Statistics in Medicine* **11**: 897-912.
100. **Royston P** (1992) Maximum likelihood estimation for Box-Cox power transformation. *Stata Technical Bulletin* **5**: 25-26.
101. **Royston P** (1992) Nonlinear regression command. *Stata Technical Bulletin* **7**: 11-18.
102. **Royston P** (1992) The use of cusums and other techniques in modelling continuous covariates in logistic regression. *Statistics in Medicine* **11**: 1115-1129.
103. **Royston P** (1992) Which measures of skewness and kurtosis are best? *Statistics in Medicine* **11**: 333-343.
104. **Royston P**, Thompson SG (1992) Model-based screening by risk with application to Down's syndrome. *Statistics in Medicine* **11**: 257-268.
105. Tan SL, **Royston P**, Campbell S, Jacobs HS, Betts J, Mason B, Edwards RCG (1992) Cumulative conception and livebirth rates after in-vitro fertilisation. *Lancet* **339**: 1390-1394.
106. Bourne TH, Campbell S, Reynolds KM, Whitehead MI, Hampson J, **Royston P**, Crayford TJ, Collins WP (1993) Screening for early familial ovarian cancer with transvaginal ultrasonography and colour blood flow imaging. *British Medical Journal* **306**: 1025-1029.
107. Rowlands S, **Royston P** (1993) Estimated date of delivery from last menstrual period and ultrasound scan: which is more accurate? *British Journal of General Practice* **43**: 322-325.
108. **Royston P** (1993) An improved R^2 . *Stata Technical Bulletin* **14**: 19-22.
109. **Royston P** (1993) A pocket-calculator algorithm for the Shapiro-Francia W' test for non-normality: an application to medicine. *Statistics in Medicine* **12**: 181-184.
110. **Royston P** (1993) A toolkit for testing for non-normality in complete and censored samples. *Statistician* **42**: 37-43.
111. **Royston P** (1993) Cusum plots and tests for binary variables. *Stata Technical Bulletin* **12**: 16-17.
112. **Royston P** (1993) Exact conditional and unconditional sample size for pair-matched studies with binary outcome: a practical guide. *Statistics in Medicine* **12**: 699-712.
113. **Royston P** (1993) Graphical detection of non-normality by using Michael's statistic. *Applied Statistics* **42**: 153-158.
114. **Royston P** (1993) Standard nonlinear curve fits. *Stata Technical Bulletin* **11**: 17-17.
115. **Royston P**, Gould WW (1993) Stata and Lotus 123. *Stata Technical Bulletin* **13**: 14-17.
116. **Royston P** (1994) Generalized linear models: revision of `glm`. *Stata Technical Bulletin* **18**: 13-14.
117. **Royston P** (1994) Generalized linear models: revision of `glm`. Rejoinder. *Stata Technical Bulletin* **19**: 17.
118. **Royston P**, Altman DG (1994) Regression using fractional polynomials of continuous covariates: parsimonious parametric modelling (with Discussion). *Applied Statistics* **43**: 429-467.
119. **Royston P**, Altman DG (1994) Using fractional polynomials to model curved regression relationships. *Stata Technical Bulletin* **21**: 11-23.
120. **Royston P**, Altman DG (1994) Fractional polynomials: correction. *Stata Technical Bulletin* **22**: 11.
121. **Royston P**, Sasieni PD (1994) Compact listing of a single variable. *Stata Technical Bulletin* **17**: 7-8.
122. **Royston P** (1995) A remark on algorithm AS181: The test for normality. *Applied Statistics* **44**: 547-551.
123. **Royston P** (1995) An enhanced `for` command. *Stata Technical Bulletin* **26**: 12-12.

124. **Royston P** (1995) Calculation of unconditional and conditional reference intervals for fetal size and growth from longitudinal measurements. *Statistics in Medicine* **14**: 1417-1436.
125. **Royston P** (1995) Fractional polynomial utilities. *Stata Technical Bulletin* **25**: 9-13.
126. **Royston P** (1995) Repeat Stata command by variables. *Stata Technical Bulletin* **27**: 3-5.
127. **Royston P**, Altman DG (1995) Opinion: Design and analysis of longitudinal studies of fetal growth. *Ultrasound in Obstetrics and Gynecology* **6**: 307-312.
128. **Royston P**, Thompson SG (1995) Comparing non-nested regression models. *Biometrics* **51**: 114-127.
129. Burns SP, Cohen RD, Iles RA, Germain JP, Going TCH, Evans SJW, **Royston P** (1996) A method for determination in situ of variations within the hepatic lobule of hepatocyte function and metabolite concentrations. *Biochemical Journal* **319**: 377-383.
130. Plaat F, **Royston P**, Morgan BM (1996) Comparison of 15 mg and 25 mg of bupivacaine both with 50 mcg fentanyl as initial dose for epidural analgesia. *International Journal of Obstetric Anesthesia* **5**: 240-243.
131. **Royston P** (1996) A plot and a test for the chi-square distribution. *Stata Technical Bulletin* **29**: 26-27.
132. **Royston P** (1996) An even more enhanced `for` command. *Stata Technical Bulletin* **30**: 5-6.
133. Sasieni PD, **Royston P** (1996) Dotplots. *Applied Statistics* **45**: 219-234.
134. Wright EM, **Royston P** (1996) Age-specific reference intervals ('normal ranges'). *Stata Technical Bulletin* **34**: 24-34.
135. Ambler G, **Royston P** (1997) Models and model selection strategies with regression splines. *Proceedings of the 12th International Workshop on Statistical Modelling*, 90-94.
136. Flynn AM, Collins WP, **Royston P**, Barbato M, Mena-Gonzalez P, Alliende ME (1997) Volumetric self-sampling of cervicovaginal fluid to determine potential fertility: a multicentre pre-effectiveness study of the Rovumeter TM. *Human Reproduction* **12**: 1826-1831.
137. **Royston P**, Altman DG (1997) Approximating statistical functions by using fractional polynomial regression. *The Statistician* **46**: 1-12.
138. **Royston P**, Wright EM (1997) Age-specific reference intervals for normally distributed data. *Stata Technical Bulletin* **38**: 4-9.
139. Wright EM, **Royston P** (1997) A comparison of statistical methods for age-related reference intervals. *Journal of the Royal Statistical Society (Series A)* **160**: 47-69.
140. Wright EM, **Royston P** (1997) Simplified estimation of age-specific reference intervals for skewed data. *Statistics in Medicine* **16**: 2785-2803.
141. **Royston P** (1998) Fractional polynomials for `st` data. *Stata Technical Bulletin* **43**: 32-32.
142. **Royston P** (1998) Normal clinical values, reference intervals for. In: *Encyclopedia of Biostatistics* vol 4, 3058-3064. Wiley, Chichester.
143. **Royston P** (1998) Polynomial regression. In: *Encyclopedia of Biostatistics* vol 4, 3429-3432. Wiley, Chichester.
144. **Royston P**, Wright EM (1998) A method for estimating age-specific reference intervals ('normal ranges') based on fractional polynomials and exponential transformation. *Journal of the Royal Statistical Society (Series A)* **161**: 79-101.
145. **Royston P**, Wright EM (1998) How to construct 'normal ranges' for fetal variables. *Ultrasound in Obstetrics and Gynecology* **11**: 30-38.
146. **Royston P**, Ambler G (1998) Generalized additive models. *Stata Technical Bulletin* **42**: 38-43.

147. **Royston P**, Ambler G (1998) Multivariable fractional polynomials. *Stata Technical Bulletin* **43**: 24-32.
148. Sasieni PD, **Royston P** (1998) Pointwise confidence intervals for running. *Stata Technical Bulletin* **41**: 17-23.
149. Bonnar J, Flynn A, Freundl G, Kirkman R, Royston P, Snowden R (1999) Personal hormone monitoring for contraception. *British Journal of Family Planning* **24**:128-134.
150. Kurmanavicius J, Wright EM, **Royston P**, Zimmermann R, Huch R, Huch A, Wisser J (1999). Fetal ultrasound Biometry: 1. Head reference values. *British Journal of Obstetrics and Gynaecology* **106**:126-135.
151. Kurmanavicius J, Wright EM, **Royston P**, Zimmermann R, Huch R, Huch A, Wisser J. (1999) Fetal ultrasound Biometry: 2. Abdomen and femur length reference values. *British Journal of Obstetrics and Gynaecology* **106**:136-143.
152. **Royston P**, Ambler G (1999) Multivariable fractional polynomials: update. *Stata Technical Bulletin* **49**: 17-23.
153. **Royston P**, Ambler G (1999) Nonlinear regression models involving power or exponential functions of covariates. *Stata Technical Bulletin* **49**: 25-30.
154. **Royston P**, Ambler G, Sauerbrei W. (1999) The use of fractional polynomials to model continuous risk variables in epidemiology. *International Journal of Epidemiology*, **28**: 964-974.
155. **Royston P**, Ferreira A (1999) A new approach to modelling daily probabilities of conception. *Biometrics*, **55**: 1005-1013.
156. **Royston P**, Wright EM (1999) Two methods for assessing the goodness-of-fit of age-specific reference intervals. *Stata Technical Bulletin* **47**: 8-15.
157. Sauerbrei W, **Royston P** (1999) Building multivariable prognostic and diagnostic models: transformation of the predictors by using fractional polynomials. *Journal of the Royal Statistical Society (Series A)* **162**: 71-94.
158. Sauerbrei W, **Royston P**, Bojar H, Schmoor C, Schumacher M and the German Breast Cancer Study Group (1999) Modelling the effects of standard prognostic factors in node positive breast cancer. *British Journal of Cancer* **79**: 1752-60.
159. Wright EM, **Royston P** (1999) Calculating reference intervals for laboratory measurements. *Statistical Methods in Medical Research* **8**: 93-112.
160. **Royston P** (2000) Choice of scale for cubic smoothing spline models in medical applications. *Statistics in Medicine*, **19**: 1191-1205.
161. **Royston P** (2000) A useful monotonic non-linear model with applications in medicine and epidemiology. *Statistics in Medicine*, **19**: 2053-2066.
162. **Royston P** (2000) A strategy for modelling the effect of a continuous covariate in medicine and epidemiology. *Statistics in Medicine*, **19**: 1831-1847.
163. **Royston P**, Wright EM (2000) Goodness-of-fit statistics for age-specific reference intervals. *Statistics in Medicine* **19**: 2943-2962.
164. Altman DG, **Royston P** (2000) What do we mean by validating a prognostic model? *Statistics in Medicine* **19**: 453-473.
165. **Royston P** (2000) A parametric model for ordinal response data, with application to estimating age-specific reference intervals. *Biostatistics*, **1**: 263-277.
166. Ambler G, **Royston P** (2001). Fractional polynomial model selection procedures: investigation of Type I error rate. *Journal of Statistical Computation and Simulation*, **69**: 89-108.
167. **Royston P** (2001). The lognormal distribution as a model for survival time in cancer, with an emphasis on prognostic factors. *Statistica Neerlandica* **55**: 89-104.

168. **Royston P** (2001) Flexible alternatives to the Cox model, and more. *The Stata Journal* **1**:1-28.
169. **Royston P** (2001) Sort a list of items. *Stata Journal* **1**:105-106.
170. Szarewski A, Maddox P, **Royston P**, Jarvis M, Anderson M, Guillebaud J, Cuzick J (2001) The effect of stopping smoking on cervical langerhans' cells and lymphocytes. *British Journal of Obstetrics and Gynaecology* **108**:295-303.
171. Ambler G, Brady AR, **Royston P** (2002) Simplifying a prognostic model: a simulation study based on clinical data. *Statistics in Medicine* **21**: 3803-3822.
172. Lange LA, Lange EM, Bielak LF, Langefeld CD, Kardia SL, **Royston P**, Turner ST, Sheedy PF, Boerwinkle E, Peyser PA (2002) Autosomal genome-wide scan for coronary artery calcification loci in sibships at high risk for hypertension. *Arteriosclerosis, Thrombosis, and Vascular Biology* **22**: 418-423.
173. **Royston P** (2002) Analysis of quality of life data in controlled clinical trials [Editorial]. *Statistical Methods in Medical Research* **11**:1-2.
174. **Royston P**, Babiker A (2002) A menu-driven facility for complex sample size calculation in randomised controlled trials with a survival or a binary outcome. *The Stata Journal* **2**: 151-163.
175. **Royston P**, Parmar MKB (2002) Flexible proportional-hazards and proportional-odds models for censored survival data, with application to prognostic modelling and estimation of treatment effects. *Statistics in Medicine* **21**: 2175-2197.
176. Sauerbrei W, **Royston P** (2002) Corrigendum: Building multivariable prognostic and diagnostic models: transformation of the predictors by using fractional polynomials. *Journal of the Royal Statistical Society (Series A)* **165**: 399-400.
177. Sauerbrei W, **Royston P** (2002) Determination of functional relationships for continuous variables by using a multivariable fractional polynomial approach. Third International Symposium, ISMDA 2002, Rome, Italy, 53-60.
178. Ambler G, **Royston P**, Head J (2003). Non-linear models for the relation between cardiovascular risk factors and intake of wine, beer and spirits. *Statistics in Medicine*, **22**: 363-383.
179. Atzpodien J, **Royston P**, Wandert T, Reitz M, DGCIN - German Cooperative Renal Carcinoma Chemo-Immunotherapy Trials Group (2003) Metastatic renal carcinoma comprehensive prognostic system. *British Journal of Cancer* **88**: 348-353.
180. Hosmer DW, **Royston P**. (2003) Using Aalen's linear hazards model to investigate time-varying effects in the proportional hazards regression model. *Stata Journal* **2** (4): 331-350.
181. **Royston P**, Parmar MKB, Qian W (2003) Novel designs for multi-arm clinical trials with survival outcomes, with an application in ovarian cancer. *Statistics in Medicine* **22**: 2239-2256.
182. **Royston P**, Sauerbrei W (2003) Stability of multivariable fractional polynomial models with selection of variables and transformations: a bootstrap investigation. *Statistics in Medicine* **22**: 639-659.
183. Farewell VT, Tom BDM, **Royston P** (2004). The impact of dichotomization on the efficiency of testing for an interaction effect in exponential family models. *Journal of the American Statistical Association*, **99** (467): 822-831.
184. Omar RZ, Ambler G, **Royston P**, Eliahoo J, Taylor KM. (2004) Cardiac surgery risk modeling for mortality: a review of current practice and suggestions for improvement. *Annals of Thoracic Surgery*, **77**: 2232-2237.
185. May M, **Royston P**, Egger M, Justice A, Sterne JAC (2004) Development and validation of a prognostic model for survival time data: application to prognosis of HIV-positive patients treated with antiretroviral therapy. *Statistics in Medicine* **23**: 2375-2398.
186. **Royston P** (2004) Flexible parametric alternatives to the Cox model: update. *Stata Journal* **4** (1): 98-101.

187. **Royston P**, Sauerbrei W (2004). A new approach to modelling interactions between treatment and continuous covariates in clinical trials by using fractional polynomials. *Statistics in Medicine* **23**: 2509-2525.
188. **Royston P**, Sauerbrei W (2004). A new measure of prognostic separation in survival data. *Statistics in Medicine* **23**: 723-748.
189. **Royston P**, Parmar MKB, Sylvester R (2004) Construction and validation of a prognostic model across several studies, with an application in superficial bladder cancer. *Statistics in Medicine* **23**: 907-926.
190. **Royston P**, Sauerbrei W, Ritchie AWS (2004). Is treatment with interferon- α effective in all patients with metastatic renal carcinoma? A new approach to the investigation of interactions. *British Journal of Cancer* **90**: 794-799.
191. **Royston P** (2004) Multiple imputation of missing values. *Stata Journal* **4**: 227-241.
192. Sauerbrei W, **Royston P**, Holländer N (2004). Modelling time-varying effects in survival. *Biometrical Journal* **46** (Supplement): 89.
193. Ambler G, Omar RZ, **Royston P**, Kinsman R, Keogh BE, Taylor KM (2005) Generic, simple risk stratification model for heart valve surgery. *Circulation*, **112**:224-231.
194. Barthel F M-S, **Royston P**, Babiker A (2005) A menu-driven facility for complex sample size calculation in randomized controlled trials with a survival or binary outcome: update. *Stata Journal* **5**: 123-129.
195. May M, Porter K, Sterne J, **Royston P**, Egger M (2005) Prognostic model for HIV-1 disease progression in patients starting antiretroviral therapy was validated using independent data. *Journal of Clinical Epidemiology*, **58**: 1033-1041.
196. **Royston P** (2005) Stata at 20: a personal view. *Stata Journal* **5**: 43-45.
197. **Royston P** (2005) Multiple imputation of missing values: update. *Stata Journal* **5**: 188-201.
198. **Royston P**, Cox NJ (2005) A multivariable scatterplot smoother. *Stata Journal* **5**: 405-412.
199. **Royston P**, Sauerbrei W (2005) Building multivariable regression models with continuous covariates, with a practical emphasis on fractional polynomials and applications in clinical epidemiology. *Methods of Information in Medicine* **44**: 561-571.
200. **Royston P**. (2005) Multiple imputation of missing values: update of *ice*. *Stata Journal* **5**: 527-536.
201. **Sasieni P**, Royston P, Cox NJ (2005) Symmetric nearest neighbor linear smoothers. *Stata Journal* **5**: 285.
202. Sauerbrei W, **Royston P**, Schumacher M (2005) Austin, P.C., and Tu, J.V. (2004), "Bootstrap Methods for Developing Predictive Models," *The American Statistician*, **58**,131-137: Comment by Sauerbrei, Royston, and Schumacher and reply. *American Statistician* **59** (1): 116-118. [Letter]
203. Altman DG, **Royston P** (2006) The cost of dichotomising continuous variables. *British Medical Journal* **332**: 1080.
204. Barthel FM, **Royston P**. Graphical representation of interactions. *Stata Journal* 2006; **6**:348-363.
205. Barthel F M-S, Babiker A, **Royston P**, Parmar MKB (2006) Evaluation of sample size and power for multi-arm survival trials allowing for non-uniform accrual, non-proportional hazards, loss to follow-up and cross-over. *Statistics in Medicine* **25**:2521-2542.
206. Burton A, Altman DG, **Royston P**, Holder RL (2006) The design of simulation studies in medical statistics. *Statistics in Medicine* **25**:4279-4292.
207. **Royston P**, Altman DG, Sauerbrei W (2006) Dichotomizing continuous predictors in multiple regression: a bad idea. *Statistics in Medicine* **25**:127-141.

208. **Royston P** (2006) Explained variation for survival models. *Stata Journal* **6**: 83-96.
209. **Royston P**, Reitz M, Atzpodien J (2006) An approach to estimating prognosis using fractional polynomials in metastatic renal carcinoma. *British Journal of Cancer* **94**: 1785-1788.
210. Sauerbrei W, Meier-Hirmer C, Benner A, **Royston P**. (2006) Multivariable regression models by using fractional polynomials: description of SAS, Stata and R programs. *Computational Statistics and Data Analysis* **50**: 3464-3485.
211. Ambler G, Omar RZ, **Royston P** (2007) A comparison of imputation techniques for handling missing predictor values in a risk model with a binary outcome. *Statistical Methods in Medical Research* **16**: 277-298.
212. **Royston P** (2007) Profile likelihood for estimation and confidence intervals. *Stata Journal* **7**(3): 376-387.
213. **Royston P** (2007) Multiple imputation of missing values: further update of *ice*, with an emphasis on interval censoring. *Stata Journal* **7**(4): 445-464.
214. **Royston P**, Sauerbrei W (2007) Improving the robustness of fractional polynomial models by preliminary covariate transformation: a pragmatic approach. *Computational Statistics and Data Analysis* **51**: 4240-4253.
215. **Royston P**, Sauerbrei W (2007) Multivariable modeling with cubic regression splines: a principled approach. *Stata Journal* **7**: 45-70.
216. Sauerbrei W, **Royston P**, Look M. (2007) A new proposal for multivariable modelling of time-varying effects in survival data based on fractional polynomial time-transformation. *Biometrical Journal* **49**: 453-473.
217. Sauerbrei W, **Royston P** (2007) Modelling to extract more information from clinical trials data: on some roles for the bootstrap. *Statistics in Medicine* **26**: 4989-5001.
218. Sauerbrei W, **Royston P**, Binder H (2007) Selection of important variables and determination of functional form for continuous predictors in multivariable model-building. *Statistics in Medicine* **26**: 5512-5528.
219. Sauerbrei W, **Royston P**, Zapien K (2007) Detecting an interaction between treatment and a continuous covariate: a comparison of two approaches. *Computational Statistics and Data Analysis* **51**: 4054-4063.
220. White IR, Wood AM, **Royston P** (2007) Multiple imputation in practice [editorial]. *Statistical Methods in Medical Research* **16**: 195-197.
221. Carlin JB, Galati JC, **Royston P** (2008) A new framework for managing and analyzing multiply imputed data in Stata. *Stata Journal* **8**(1): 49-67.
222. King M, Walker C, Levy G, Bottomley C, **Royston P**, Weich S, Bellon-Saameno JA, Moreno B, Svab I, Rotar D, Rifel J, Maarros H-I, Aluoja A, Kalda R, Neeleman J, Geerlings MI, Xavier M, Carraca I, Goncalves-Pereira M, Vicente B, Salvidia S, Melipillan R, Torres-Gonzalez F, Nazareth I (2008) Development and validation of a risk prediction algorithm for episodes of major depression in European general practice attendees: the PREDICT study. *Archives of General Psychiatry* **65**: 1368-1376.
223. Parmar MK, Barthel FM, Sydes M, Langley R, Kaplan R, Eisenhauer E, Brady M, James N, Bookman MA, Swart AM, Qian W, **Royston P**. (2008) Speeding up the evaluation of new agents in cancer. *Journal of the National Cancer Institute* **100**:1204-1214.
224. **Royston P**, Parmar MKB, Altman DG (2008) Visualizing length of survival in time-to-event studies: a complement to Kaplan–Meier plots. *Journal of the National Cancer Institute* **100**: 92-97.
225. **Royston P**, Sauerbrei W (2008) Interactions between treatment and continuous covariates: a step toward individualizing therapy. *Journal of Clinical Oncology* **26**: 1397-1399. [Editorial]
226. **Royston P**, Altman DG, Parmar MKB (2008) Validating and updating a prognostic survival model in independent data. *Statistics in Medicine*, submitted.

227. **Royston P**, Sauerbrei W (2008) *Multivariable model-building. A pragmatic approach to regression analysis based on fractional polynomials for modelling continuous variables*. Wiley-Blackwell, Chichester. [Book]
228. Wood AM, White IR, **Royston P** (2008) How should variable selection be performed with multiply imputed data? *Statistics in Medicine* **27**: 3227-3246.
229. Altman DG, Vergouwe Y, **Royston P**, Moons KGM. (2009) Validating a prognostic model. *British Medical Journal* **338**: b605.
230. Barthel F-MS, Royston P, Parmar MKB (2009) A menu-driven facility for sample-size calculation in novel multiarm, multistage randomized controlled trials with a time-to-event outcome. *Stata Journal* **9** (4): 505-523.
231. Lambert P, **Royston P** (2009) Further development of flexible parametric models for survival analysis. *Stata Journal* **9**: 265-290.
232. Marshall A, Altman DG, Holder DG, **Royston P**. (2009) Combining estimates of interest in prognostic modelling studies after multiple imputation: current practice and guidelines. *BMC Medical Research Methodology* **9**: 57.
233. Moons KGM, **Royston P**, Vergouwe Y, Grobbee DE, Altman DG. (2009) Prognosis and prognostic research: what, why and how? *British Medical Journal* **338**: b375.
234. Moons KGM, Altman DG, Vergouwe Y, **Royston P**. (2009). Application and impact of prognostic models in clinical practice. *British Medical Journal* **338**: b606.
235. **Royston P**, Moons KGM, Altman DG, Vergouwe Y. (2009) Developing a prognostic model. *British Medical Journal* **338**: b604.
236. **Royston P**, Carlin JB, White IR (2009) Multiple imputation of missing values: new features for m.i.m. *Stata Journal* **9**: 252-264.
237. **Royston P**, Sauerbrei W (2009) Two techniques for investigating interactions between treatment and continuous covariates in clinical trials *Stata Journal* **9**: 230-251.
238. **Royston P**, Sauerbrei W (2009) Bootstrap assessment of the stability of multivariable models. *Stata Journal* **9**: 547-570.
239. **Royston P** (2009) Multiple imputation of missing values: Further update of ice, with an emphasis on categorical variables. *Stata Journal* **9** (3): 466-477.
240. White IR. **Royston P** (2009) Imputing missing covariate values for the Cox model. *Statistics in Medicine* **28**: 1982-1998.
241. Choodari-Oskoei B, Parmar MKB, **Royston P** (2010) Estimating the treatment effect in two-arm multi-stage (TAMS) trials with time to event outcome. *Trials*, submitted.
242. Lambert P, Dickman PW, Nelson CP, **Royston P** (2010) Estimating the crude probability of death due to cancer and other causes using relative survival models. *Statistics in Medicine* **29**: 885-895.
243. Mallett S, **Royston P**, Dutton S, Waters R, Altman DG (2010) Reporting methods in studies developing prognostic models in cancer: a review. *BMC Medical Research Methodology*, **8**: 20.
244. Mallett S, **Royston P**, Waters R, Dutton S, Altman DG (2010) Reporting performance of prognostic models in cancer: a review. *BMC Medical Research Methodology*, **8**: 21.
245. Marshall A, Altman DG, **Royston P**, Holder RL (2010) Comparison of techniques for handling missing covariate data within prognostic modelling studies: a simulation study. *BMC Medical Research Methodology*, **10**: 7 (<http://www.biomedcentral.com/1471-2288/10/7>).
246. **Royston P**, Altman DG (2010) Visualizing and assessing discrimination in the logistic regression model. *Statistics in Medicine* **29**: 2508-2520.

247. **Royston P**, Barthel FM-S (2010) Projection of power and events in clinical trials with a time-to-event outcome. *Stata Journal* **10(3)**: 386-394.
248. **Royston P**, Sauerbrei W, Becher H (2010) Modelling continuous exposures with a 'spike' at zero: a new procedure based on fractional polynomials. *Statistics in Medicine* **29**: 1219-1227.
249. Vergouwe Y, **Royston P**, Moons KGM, Altman DG (2010) Development and validation of a prediction model with missing predictor data: a practical approach. *Journal of Clinical Epidemiology*, **63**: 205-214.
250. White IR, Daniel R, **Royston P** (2010) Avoiding bias due to perfect prediction in multiple imputation of incomplete categorical variables. *Computational Statistics and Data Analysis*, **54**: 2267-2275.
251. Manola J, **Royston P**, Elson P, Bacik McCormack J, Mazumdar M, Négrier S, Escudier B, Eisen T, Dutcher J, Atkins M, Heng DY, Choueiri TK, Motzer R, Bukowski R, for the International Kidney Cancer Working Group (2011) Prognostic model for survival in patients with metastatic renal cell carcinoma: results from the International Kidney Cancer Working Group. *Clinical Cancer Research* **17**: 5443-5450.
252. White IR, **Royston P**, Wood AM (2011) Multiple imputation using chained equations: Issues and guidance for practice. *Statistics in Medicine*, **30**: 377-399; DOI: 10.1002/sim.4067.
253. Binder H, Sauerbrei W, **Royston P** (2011) Multivariable model-building with continuous covariates: 1. Performance measures and simulation design. *Statistics in Medicine* submitted.
254. Binder H, Sauerbrei W, **Royston P** (2011) Multivariable model-building with continuous covariates: 2. Comparison between splines and fractional polynomials. *Statistics in Medicine* submitted.
255. Choodari-Oskoei B, **Royston P**, Parmar MK (2011) A simulation study of predictive ability measures in a survival model I: Explained variation measures. *Statistics in Medicine* (doi: 10.1002/sim.4242).
256. Moons KGM, AP. Kengne AP, Woodward M, Altman DG, **Royston P**, Vergouwe Y, Grobbee DE (2011) Development, validation, updating and impact assessment of clinical prediction models in cardiovascular medicine: a review. *Heart*, in press.
257. **Royston P**, Altman DG (2011) External validation of a Cox prognostic model: principles and methods. *Statistics in Medicine*, submitted.
258. **Royston P**, Lambert PC (2011) *Flexible parametric survival analysis using Stata: Beyond the Cox model*. StataPress, College Station, TX. [Book]
259. **Royston P**, Parmar MKB (2011) The use of restricted mean survival time to estimate the treatment effect in randomized clinical trials when the proportional hazards assumption is in doubt. *Statistics in Medicine* **30**: 2409-2421.
260. **Royston P**, White IR (2011) Multiple imputation by chained equations (MICE): implementation in Stata. *Journal of Statistical Software*, in press.