Appendix

**This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.**

Appendix

Statistical modelling to control for the effect of potential confounding variables

Measurable known potential confounders affecting the performance for patients who were discharged included the number of patients presenting and their triage category, the staffing level within the department and ED occupancy. Data were aggregated to produce daily presentation numbers, staffing levels and ED occupancy, as well as the corresponding daily outcome performance measures.

For continuous variables, scatter plots, univariate analysis and residual plots were used to initially assess normalcy of distribution and linearity of their association and constancy of variance with the performance measures.

Multiple linear regression models were then used to assess potential models, identify collinearity using variance inflation factor, assessing for effect modification of each of these variables on the year of presentation using interaction terms and estimating goodness of fit. Models with "total time" and "percentage did not wait" best met the requirements of normalcy, homoscedasticity, linearity and lack of effect modification with "year of presentation". Analysis of covariance using a generalised linear model with "year of presentation" (2008, 2009) as the fixed factor was then used to calculate the mean difference in "total time" and "percentage did not wait" before and after the introduction of FirstNet, assuming no difference in the value of the covariates.