

**Additional Supporting Information for: The impact of a computerised test of attention and activity (QbTest) on diagnostic decision-making in children and young people with suspected ADHD: single-blind randomised controlled trial – by Chris Hollis et al.**

**Appendix S4.** Supplementary analysis.

An additional analysis was conducted which was not specified in the trial protocol. The primary analysis was performed for group stratified by type of QbTest (6-12-years version and 12+years version). For the participants (n=198) using the ‘younger’ (age 7-12) version, those in the QbOpen group had significantly earlier diagnostic decisions (HR = 1.84; 95% CI =1.23 to 2.68;  $p=.001$ ), while those using the ‘older’ (12+) version of the QbTest (n=52) did not show statistically significant effects (HR = 0.82; 95% CI = 0.37 to 1.80;  $p=.618$ ).

However, our protocol and trial design was not adequately powered to assess the potential interaction effect of age (stratified by those using the younger 7-12 version of QbTest and ‘older’ 12+ version) on the primary outcome. Given the possibility that the effects of QbTest on ADHD diagnostic decision making could be attenuated in adolescents, the interaction with age and QbTest type on diagnostic decision making should be addressed by future adequately powered studies.

**Appendix S5.** Summary of clinician job titles, and average salaries, weeks worked per year and hours worked per week.

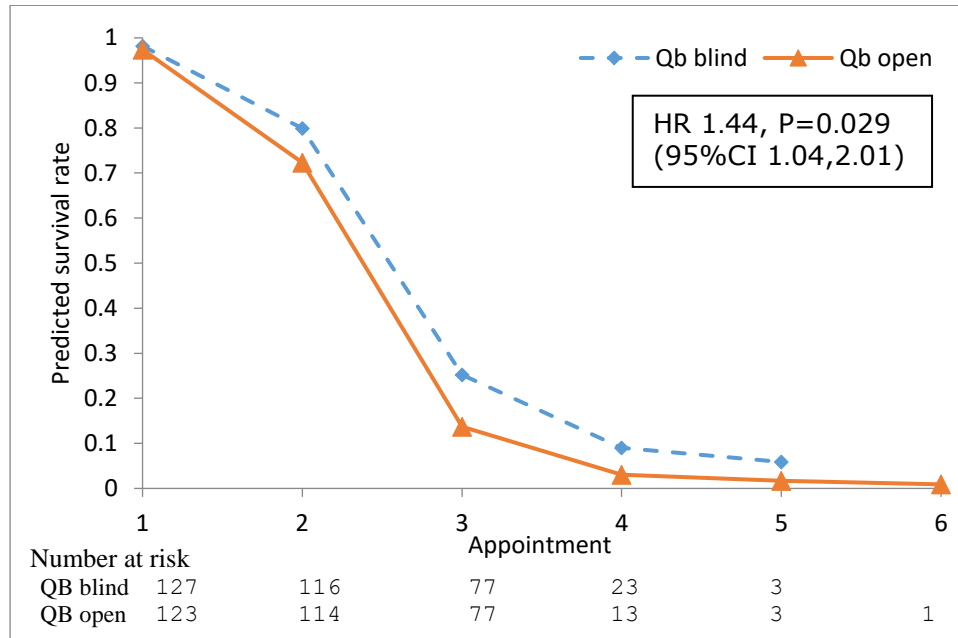
<b>Clinician Job Title</b>	<b>Average Annual Salary<sup>1</sup></b>	<b>Assumed PSSRU Title</b>	<b>Average Weeks Worked Per Year</b>	<b>Average Hours Worked Per Week</b>	<b>Source</b>
Consultant Child and Adolescent Psychiatrist	£96,815.50	Assumed: Consultant: Psychiatric	42.3	43.3	PSSRU2016, p. 191
Consultant Paediatrician	£96,815.50	Assumed: Consultant: Psychiatric	42.3	43.3	PSSRU2016, p. 191
Associate Specialist Community Paediatrician	£69,649.00	Assumed: Associate Specialist	42.4	40.0	PSSRU2016, p. 191
Speciality Doctor Community Paediatrician	£53,782.50	Assumed: Registrar Group	42.4	48.0	PSSRU2016, p. 191
SpR Child and Adolescent Psychiatrist	£38,974.50	Assumed: Registrar Group	42.4	48.0	PSSRU2016, p. 191
CT2 Doctor	£35,196.00	Assumed: Core Trainee Year 2	44.4	48.0	PSSRU2016, p. 191
Core Trainee	£35,196.00	Assumed: Core Trainee Year 2	44.4	48.0	PSSRU2016, p. 191
Clinical Psychologist	£44,031.00	Assumed: Generic Single-Disciplinary CAMHs Team <sup>2</sup>	42.0	37.5	PSSRU2016, p. 172
Assistant Psychologist	£30,763.50	Assumed: Generic Single-Disciplinary CAMHs Team	42.0	37.5	PSSRU2016, p. 172
ADHD Nurse Specialist	£36,378.00	Assumed: Advanced Nurse	42.4	37.5	PSSRU2016, p. 142
Advanced Nurse	£30,763.50	Assumed: Advanced Nurse	42.4	37.5	PSSRU2016, p. 142
Registered Nurse (LD) and Senior CAMHS Practitioner	£30,763.50	Assumed: Advanced Nurse	42.4	37.5	PSSRU2016, p. 142
Band 6 Nurse	£30,487.78	Assumed: Nurse (Mental Health)	41.7	37.5	PSSRU2015, p. 170
Band 7 Nurse	£36,256.89	Assumed: Nurse (Mental Health)	42.5	37.5	PSSRU2016, p. 142
Associate Practitioner	£20,837.50	Assumed: Targeted CAMHs Team <sup>3</sup>	42.0	37.9	PSSRU2016, p. 175

<sup>1</sup>Average annual salary retrieved from the HR department. <sup>2</sup>The staff in these teams are almost exclusively clinical psychologists, educational psychologists and other therapists.

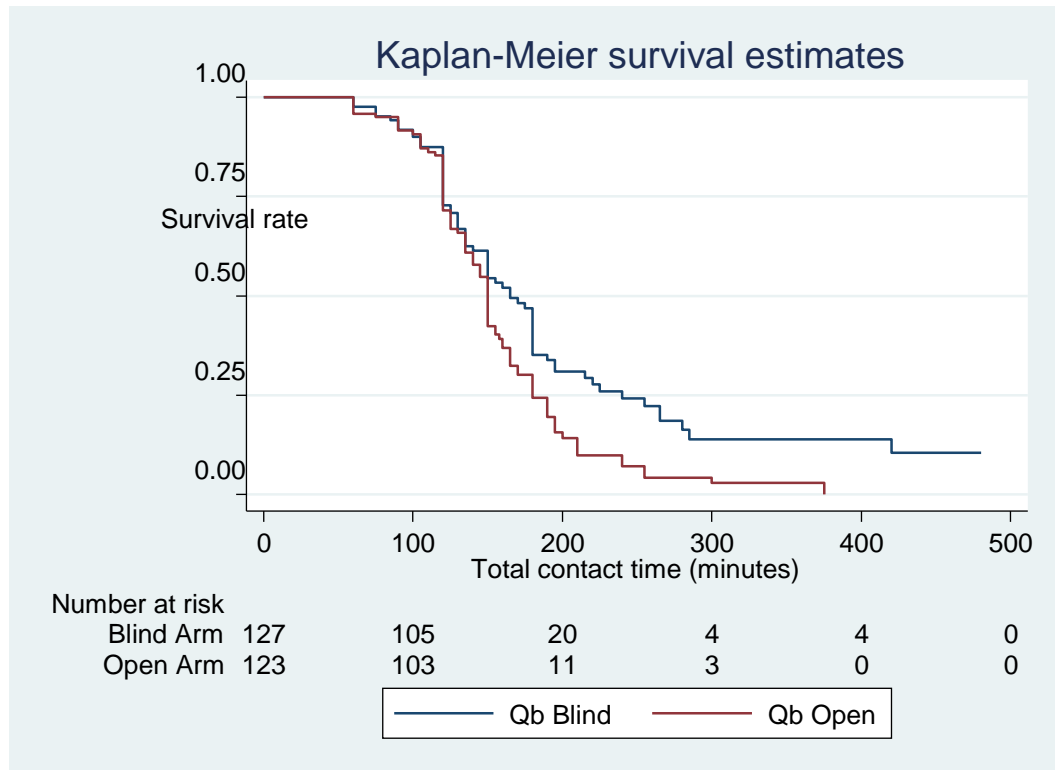
<sup>3</sup>These teams provide services for children and young people with particular problems or for those requiring particular types of therapeutic interventions

Senior CAMHs Practitioner	£30,763.50	Assumed: Targeted CAMHs Team	42.0	37.9	PSSRU2016, p. 175
Health Care Assistant	£18,227.50	Assumed: Targeted CAMHs Team	42.0	37.9	PSSRU2016, p. 175

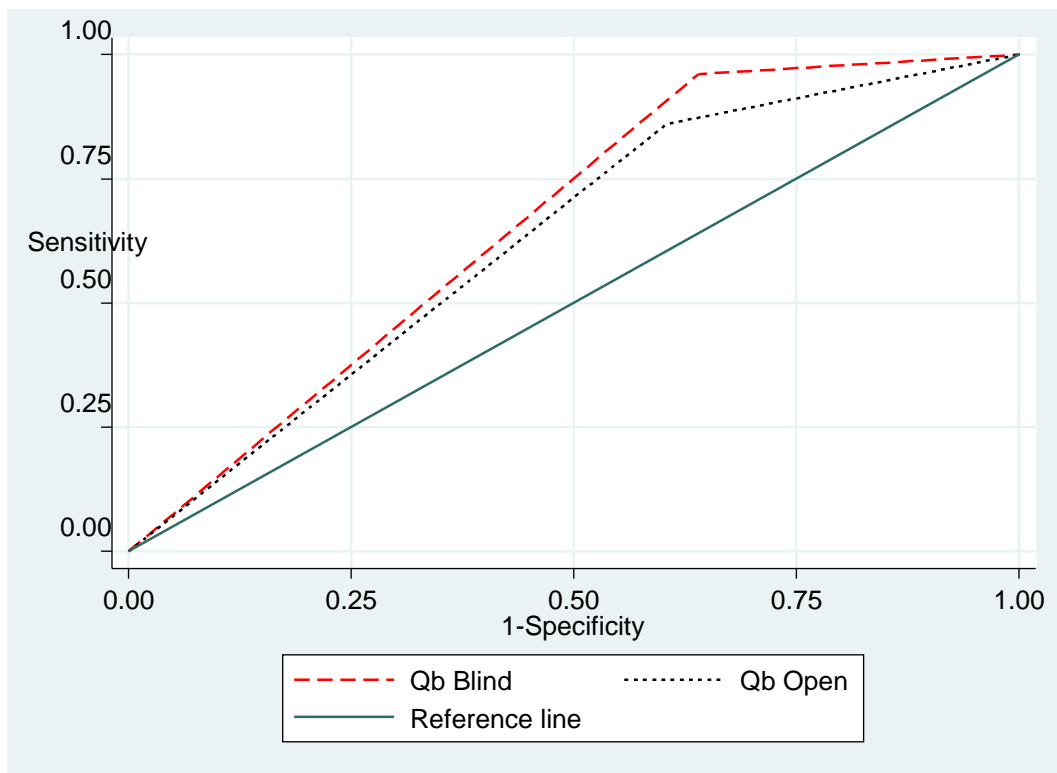
**Appendix S6.** Primary outcome - Survival plot of estimates of time to diagnosis by group over six-months with QbTest report withheld (QbBlind group) or QbTest report disclosed (QbOpen group).



**Appendix S7.** Secondary outcome - Kaplan-Meier plot of number of consultation minutes to reach a diagnosis in the QbBlind and QbOpen group over six-months.

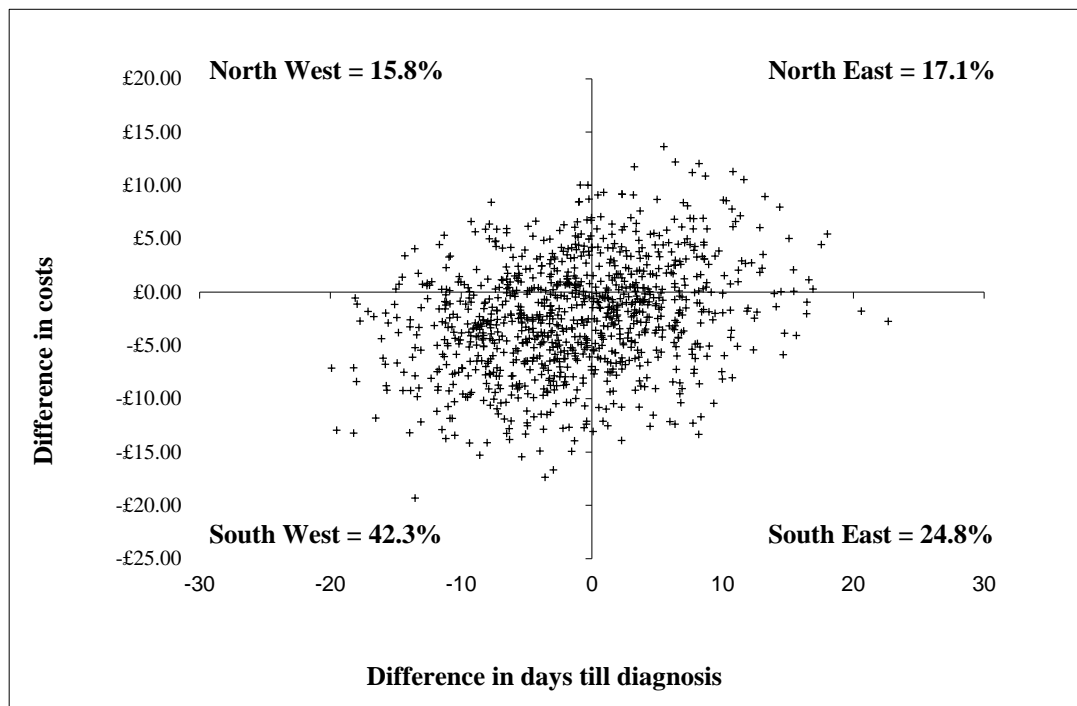


**Appendix S8.** Secondary outcome - ROC for QbBlind and QbOpen compared to DAWBA ratings.



ROC = receiver operating characteristic. DAWBA = Development and Wellbeing Assessment. ROC and sensitivity analysis are conducted on  $n = 241$ . DAWBAs were missing for  $n = 9$ . 123 DAWBAs contained missing parent or teacher data.

**Appendix S9.** Scatter graph to show the bootstrap results on the cost effectiveness plane (using days until diagnostic decision as a secondary outcome measure).



**Appendix S10.** Results of the net monetary benefit (NMB) at various willingness-to-pay (WTP) threshold values using EQ5DY as a secondary outcome measure.

net monetary benefit (NMB)						
WTP = £5,000	WTP = £10,000	WTP = £15,000	WTP = £20,000	WTP = £25,000	WTP = £30,000	WTP = £35,000
£35.28	£68.12	£100.96	£133.80	£166.64	£199.48	£232.32



**Appendix 11.** Net monetary benefit (NMB) curve at the various willingness-to-pay (WTP) threshold values.

