HIV testing in the ED is effective and sustainable

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Background

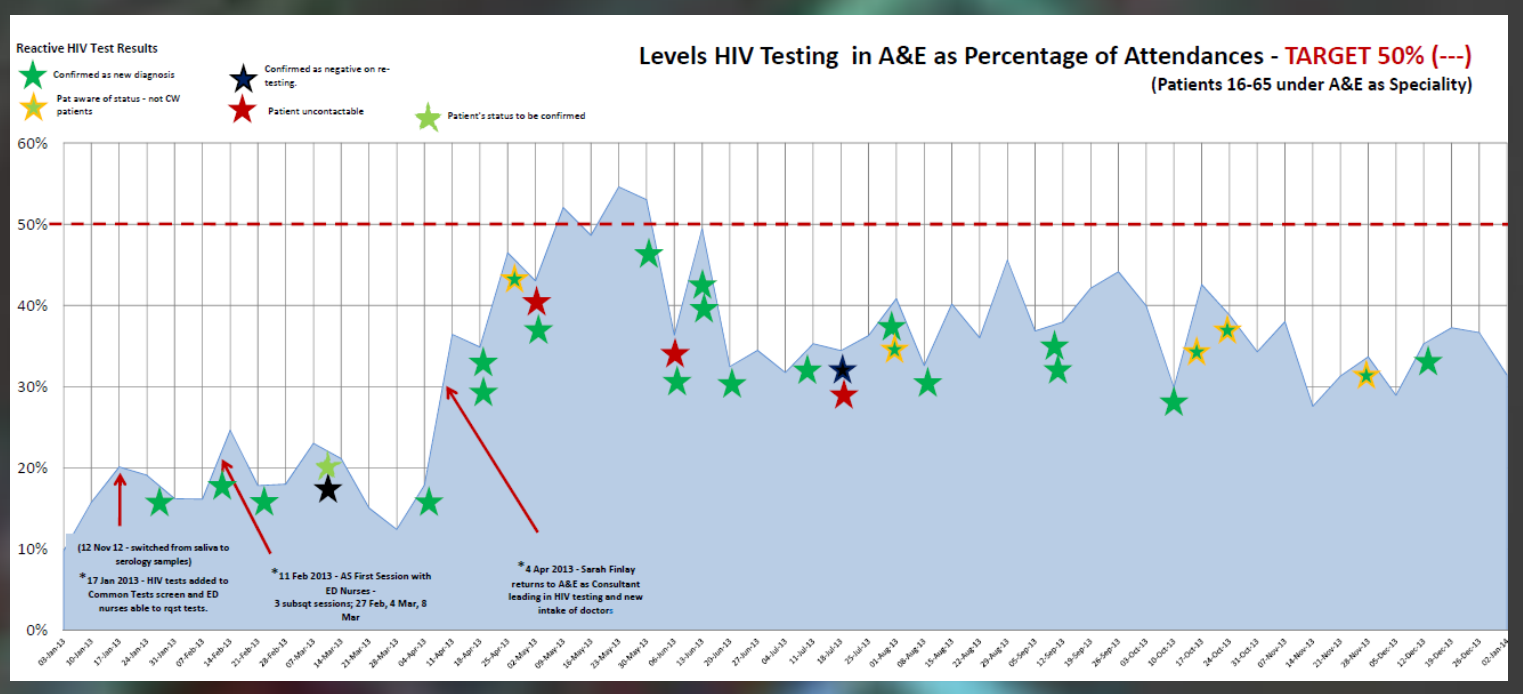
There is little UK data on effectiveness, sustainability and cost of HIV testing programmes. In 2011 we introduced a routine HIV testing service for patients aged 16-65 attending the Emergency Department (ED). We evaluated the effectiveness of quality improvement (QI) interventions to improve testing rates, sustainability and cost.

Methods

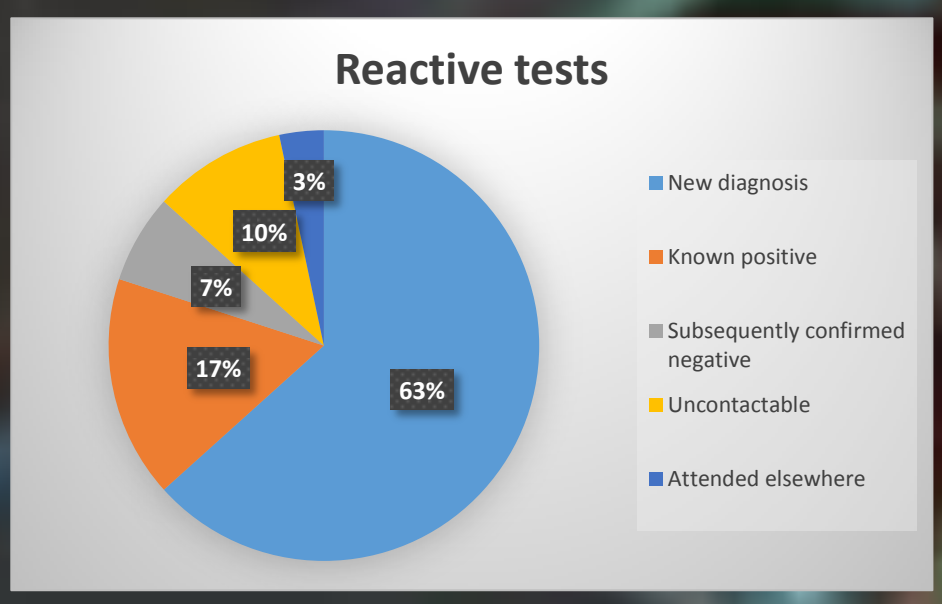
Throughout 2013 data was collected on ED attendances, HIV testing rates, test requesters, test outcomes and transfer to care (including CD4 and RITA results). Utilising QI methodology a cross specialty team designed and reviewed interventions and outcomes weekly. Interventions included: including nurses offering the test, HIV serology added to doctors' and nurses' common request set, local champions, staff badges promoting testing, weekly top tester award, newsletters with patient stories and personalised feedback on testing rates. Cost data included laboratory and equipment costs and staff time (ED and GU).

Results

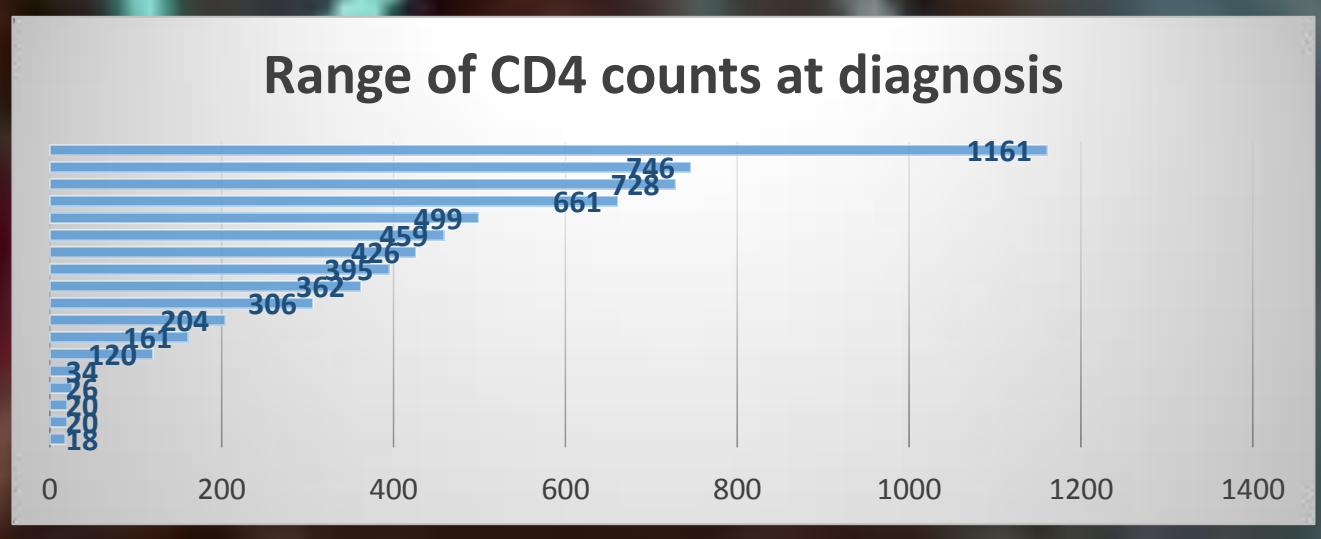
Testing rates increased significantly from 16% to 33% (peak of 50%). Statistical process control showed sustained increases following several of the interventions.



Of the 30 reactive HIV tests, 19 were new (0.3%). The remainder were: 1 patient chose to attend elsewhere, 5 known positives, 2 weakly reactives confirmed negative and 3 were not contactable (2 overseas visitors).



The pre-confirmatory cost per new HIV diagnosis was £1663.63 for laboratory and equipment costs alone, £1886.31 with the addition of ED staff testing time and £2035.26 when adding the implementation team's time. Opportunity costs were estimated as minimal, however coverage fell when surrogate ED performance measures indicated it was busy.



Of the 19 all transferred to care; median CD4 count was 353 cells/uL (range18-1161). Eight patients (42%) were likely to have recently acquired their infection.

Conclusion

Routine HIV testing in an ED is feasible and effective. QI methodology was successful in producing a sustained increase in testing. However given the increased number of diagnoses with increased coverage (suggesting lack of targeted testing) further sustained improvement is required, and is likely to result in more diagnoses. Maintaining a consistent high level of testing in a department with many transient staff and competing pressures continues to be a challenge, however this programme is likely to be highly cost effective and therefore worth significant investment to improve coverage and support sustainability.

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