Introduction
Rapid assessment and access to diagnostic tests and specialist opinion is a priority for patients. Previous observational studies have shown that the length of the diagnostic interval affects mortality negatively. Current cancer targets focus on the time from referral to management. Previous audits of our service have identified frequent delay from an abnormal CXR suggestive of lung cancer and referral from primary care. In an attempt to minimise the time to referral we designed and assessed the efficacy of a fast track email referral for radiologists reporting CXR suggestive of lung cancer. Efficacy was measured in terms of timely access to CT and specialist opinion and its effect on patient outcomes.

Method
This was a retrospective cohort study carried out at the Western General hospital from email referrals received by the lung cancer service to a designated email address LCCWGH@nhslothian.scot.nhs.uk. Data was collected from TRAK electronic patient records over a two year period.

Radiologists email the lung cancer team when a CXR strongly suggestive of lung cancer is reported and the lung cancer consultants actively triage the patient to a one stop lung cancer clinic with CT.

Results
In total 347 email referrals were received between October 2014 to September 2016. 182 (52%) referrals were from radiologists and 171 (49%) were from alternative specialties. Of the referrals received via the fast track email the mean time to CT chest and review at lung cancer clinic was 6.3 days (range: 1-26 days, median 6 days). In comparison the 108 patients referred through traditional routes had a mean waiting time of 17.2 days (range 1-91; median 12.5 days). The email referrals from radiologists carried a yield of 60% for proven lung cancer, with a further 20% ‘possible’ cancer awaiting radiological follow up. (Figure 1). 23.2% of patients were diagnosed with stage one lung cancer via this route in comparison to 13.1% through traditional referral systems.

Conclusion
We were able to demonstrate that by using our fast track cancer referral system patients received significantly earlier access to CT scans and specialist opinion compared to alternative routes. The majority of these patients had a diagnosis of lung cancer confirmed and went on to receive prompter treatment. More patients were diagnosed with stage one lung cancer and subsequently referred to surgery.

References

Acknowledgements
With thanks to the excellent radiology department at the Western General Hospital, Edinburgh for their support.