Background and Aims
Vasodilator stress is traditionally contraindicated in patients with asthma or chronic obstructive airways disease (COAD). However, recent evidence suggests that adenosine is safe in well-controlled disease. We conducted a systematic review of the safety and tolerability of adenosine stress in patients with asthma or COAD.

Methods
- 124 patients (46% asthma, 54% COAD) were identified from 1261 consecutive subjects referred for a clinically indicated radionuclide myocardial perfusion SPECT study (MPI).
- 72 subjects matched for demographic and clinical indication with no history of bronchospasm who underwent adenosine stress MPI for the assessment of coronary artery disease (CAD) comprised the control group.
- Completion of stress protocol, frequency and severity of side effects and adverse events over the course of the stress test were assessed and compared between the groups.

Results
Of 124 patients with history of asthma/COAD, 72 (58%) were suitable for adenosine stress while 31 (25%) underwent dobutamine and 21 (17%) exercise stress.

Conclusion
A titrated adenosine protocol with prophylactic use of an inhaled beta-2-agonist is a safe procedure in patients with history of mild, well-controlled asthma or COAD undergoing stress myocardial perfusion imaging.