Title: Nitrofurantoin-induced interstitial lung disease

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Body: Nitrofurantoin is widely used for UTI prophylaxis. Long-term use is known to be able to cause serious adverse effects including pulmonary and hepatic toxicity. The prevalence of nitrofurantoin-induced pulmonary injury is on the increase again as the drug regains popularity as a urinary antiseptic. We describe a previously healthy 83-year-old woman who presented to our emergency department in January 2012 with progressive dyspnoea since 2 weeks. This was not preceded by cough. She had no fever, wheezing, chest pain, or sputum production. She was a 50 pack-year ex-smoker. She had no previous exposure to tuberculosis or industrial chemicals. However, she suffered from recurrent symptomatic urinary tract infections. On examination she appeared dyspnoeic. She was afebrile and normotensive with respiratory rate of 31 per minute and oxygen saturation was 91% while receiving supplementary oxygen at a flow of 5 liter per minute. Respiratory examination revealed fine inspiratory crackles throughout both lungs. Arterial blood gas showed hypoxia with paO₂ 5.4 kPa (without oxygen suppletion), paO₂ 8.3 kPa (with 5 liter/min oxygen suppletion) and complete compensation of respiratory acidosis with pH 7.37, and PaCO₂ 6.9 kPa on 5 liter oxygen suppletion with base excess 2.9 mmol/l. Chest x-ray showed diffuse bilateral interstitial infiltrates. Initial treatment with co-amoxiclav was initiated. CT scanning of the chest showed widespread ground-glass appearance in both lungs with organising pneumonia. A diagnosis of nitrofurantoin-induced interstitial lung disease (NIILD) was suspected. Nitrofurantoin was subsequently stopped and prednisone treatment at 30 mg OD was initiated. Follow-up chest X-ray showed marked improvement.