

Case Study: A Rapid Access Lung Cancer Service

Kettering General Hospital

A significant proportion of lung cancer patients present as an emergency and have a poor one year survival. Many of these patients have had contact with the health services before presenting as an emergency. It is estimated that one in five of the cancer patients referred to outpatients have an unplanned admission before their clinic appointment.

Kettering General Hospital has in place a rapid access lung cancer service to reduce the number of emergency lung cancer admissions. It provides an effective alternative ambulatory pathway for high risk patients. All two week wait referrals are vetted by the respiratory physicians. Those identified as being at high risk of admission are prioritised and reviewed urgently on the ambulatory care unit usually by the next working day. Patients with the following features are expedited:

1. Superior vena caval obstruction
2. Liver function abnormalities
3. Large tumour burden on chest radiograph
4. Severe symptoms such as pain and breathlessness
5. Large pleural effusion.

Patients incidentally diagnosed with suspected lung cancer in A&E are also reviewed on the ambulatory care unit wherever feasible. All lung cancer admissions are also prioritised for review by the respiratory team to facilitate management. The service was evaluated for a period of 12 months from October 2014 and compared with the 12 month period prior to the introduction of the ambulatory care unit in June 2013. As part of the service, the team developed an innovative physician-led lung cancer diagnostic service utilising ultrasound to facilitate early diagnosis. FNAC of supraclavicular lymph nodes and US guided peripheral lung biopsies are routinely performed by physicians. This relieves pressure on CT guided biopsy slots which are a potential source of delay in many hospitals.

Following introduction of this service, the number of unplanned lung cancer admissions dropped from 108 to 67 and their average length of stay dropped from 11.6 to 8.1 days. It is estimated that this resulted in a cost saving of £170,000 based on 710 bed day reduction (£300/bed day) after taking into consideration physician time. Reducing the lung cancer admission rate nationally to 34% of lung cancer incidence, as achieved in Kettering, will avoid 6800 admissions (>55,000 bed days) with significant savings. This novel approach could easily be adopted widely and would have a significant impact across NHS.

KGH	Incidence of Lung cancer	Total no. of admissions (% of Lung cancer incidence)	LOS	Total bed days
2012-13	195	108 (55%)	11.6	1253
2014-15	195	67 (34%)	8.1	543
England & Wales				
2012-13	33,231	18,878 (56%)	8.9	168,014
2014-15	30,765	17,281 (56%)	8.9	153,800

Table 1: Overview of lung cancer admissions at KGH and in England & Wales during the 12-month period in 2012-13 prior to the intervention, compared to the 12 months from October 2014.