

## Lung Cancer: Moving Imaging to the Front of Outpatient Pathways

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### Traditional lung cancer pathway

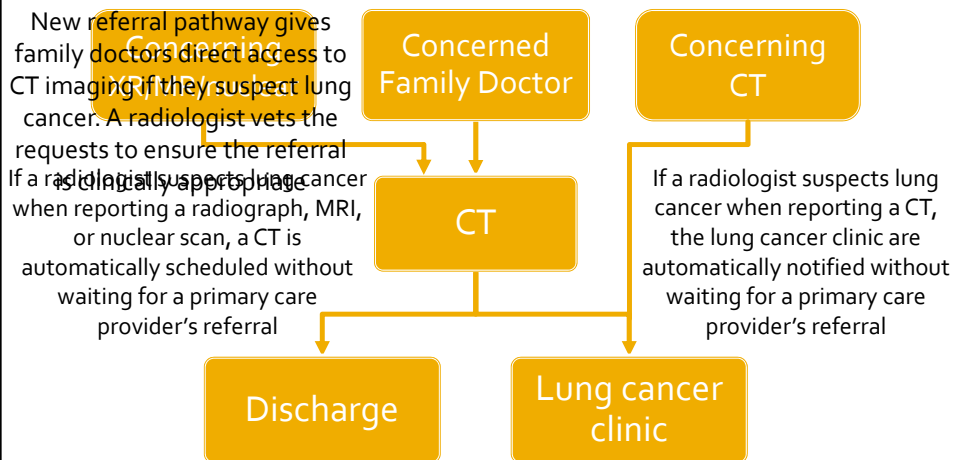
Concerned  
Family  
Doctor

evidence of lung cancer the patient is investigated and treated as needed, if not, then pathways require patients suspected of having lung cancer to be first referred to a specialist for a clinic assessment where a decision is made on whether imaging is warranted

## Lung cancer pathway

- Streamline system by moving CT to the front of the pathway & allow radiologists to refer patients for a CT if they report a suspicious XR
  - Replicate cost saving benefits of early imaging seen in inpatient studies (*Battle et al., 2010*)
  - Reduced time to diagnosis allows faster treatment
    - The reduction in time to treatment is not likely to have a significant effect on clinical outcome as the difference is a matter of days/weeks
  - Less patient anxiety with faster time to diagnosis

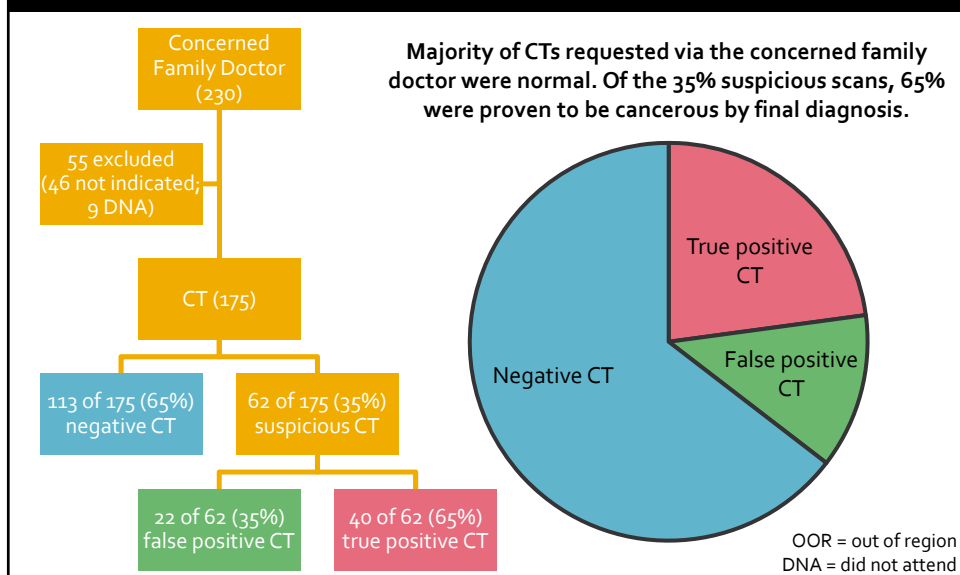
## "Straight to CT" pathway



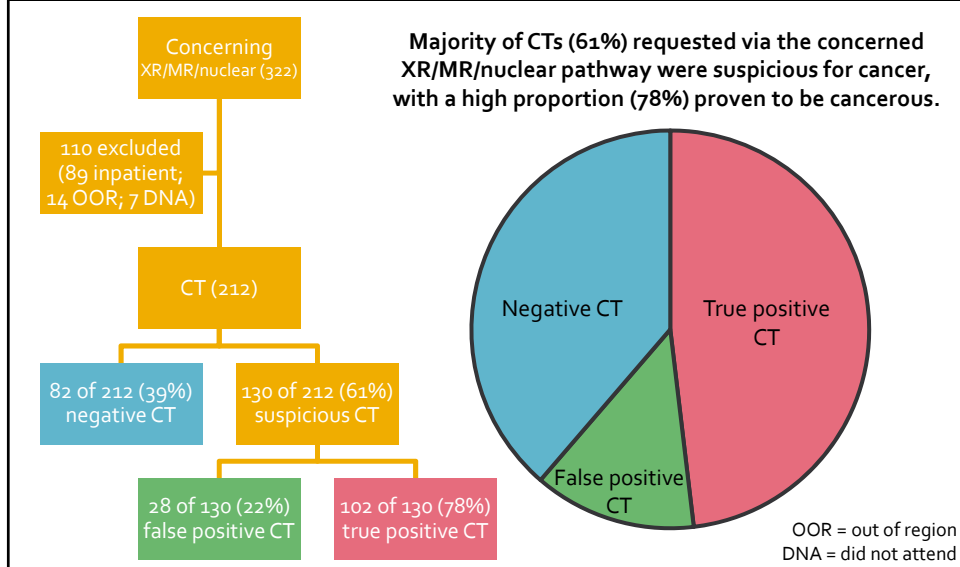
## “Straight to CT” pathway

- Analysed lung cancer referrals for a year from 6<sup>th</sup> Jan 2014 to 6<sup>th</sup> Jan 2015 after new referral pathway was brought into practice
- The new “straight to CT” pathway has three routes into the lung cancer clinic (total = 843):
  1. Concerned Family Doctor: 230
    - Plain film: 317
    - MRI: 4
    - Nuclear scan: 1
  2. Concerning XR/MR/nuclear imaging: 322
  3. Concerning CT: 291

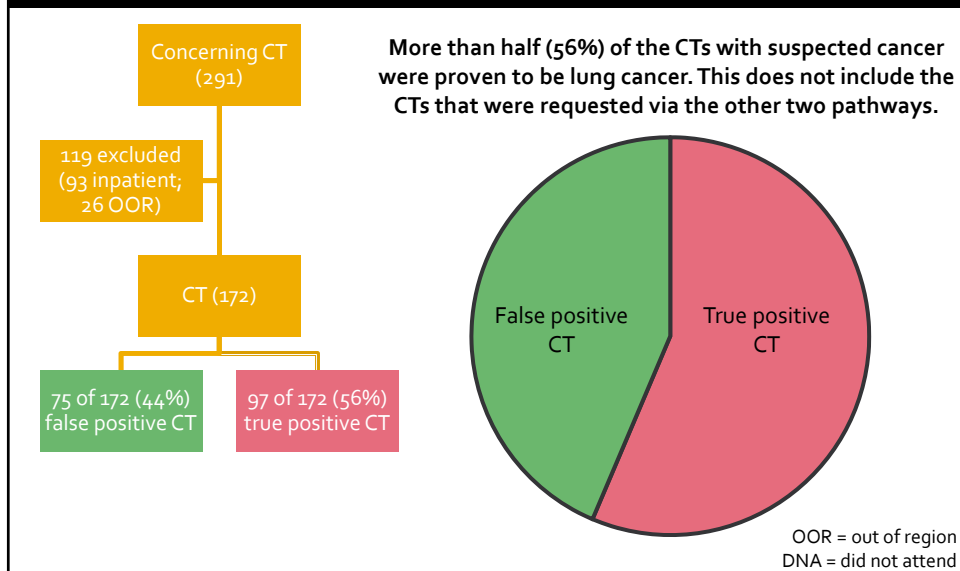
## Concerned Family Doctor pathway



## Concerning XR/MR/nuclear pathway



## Concerning CT pathway



## “Straight to CT” vs old pathway

- “Straight to CT” is faster and more cost-effective
  - 42% cost saving compared to previous year
  - Faster referral means quicker diagnosis & less patient anxiety
- Role of radiologist in “Straight to CT” pathway
  - Radiologist reviews referral from family doctors to ensure appropriateness, which does add to radiologist’s workload
  - CTs marked as suspicious for cancer by thoracic trained radiologists were significantly more likely to be proven to be cancerous (78%) than CTs marked by non-thoracic trained radiologists (53%). May need thoracic trained radiologists to report CTs to maximise value
- Loss of the lung cancer clinic to filter requests for CT imaging may lead to more imaging being performed
  - However, our results show a similar number of CTs performed before and after the new referral pathway

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Reference:  
 Battle, J. et al. (2010).  
 Patients Imaged Early During Admission Demonstrate Reduced Length of Hospital Stay: A Retrospective Cohort Study of Patients Undergoing Cross-Sectional Imaging.  
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