Diagnosis of TB in General Practice: Case Review

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Aim

To identify TB cases diagnosed in a practice population over a defined time period:

– Establish time to diagnosis from initial presentation
– Identify missed opportunities for early diagnosis
– Consider how we can do better
– (contact tracing?)
Why not do an audit?

• Small numbers of patients involved
• Practical issues:
  – natural history of TB, prolonged treatment etc
    (case definition, measurable outcomes)
  – susceptible populations are ‘hard to reach’, mobile
• Lack of national guidelines relating to TB diagnosis and management in primary care
  – what would be the audit standard?
Background

• South Norwood, Croydon.
• Relatively high migrant population (though historically Caribbean)
• Practice population ~10,000
  – UK TB rate 13.9/100,000
  – London TB rate 41.8/100,000
  – Croydon TB rate ~32.5/100,000
  (= expected rate in practice ~3/year?)
Case Review: search terms

• Registration: Permanent
• Read code: Of type \textbf{A1...00 Tuberculosis}
  – (covers \textit{Tuberculosis} – \textit{cervical lymphadenitis}, \textit{Other specified tuberculosis}, \textit{Tuberculosis pleural effusion}... etc)
• Date of event:
  – Is Between 01 Jun 2011 and 16 Jun 2014 (INC)
Results 1

• 7 ‘hits’ → 1 miscoding, 6 confirmed cases
• 2 new cases/year
• Below expected for Croydon/London, but...
  – Much local variation in demographics
  – TB incidence prob too low to draw meaningful conclusions at practice level
• Median time to CXR/referral ~10/52, mean number of presentations 3.5
Results 2

Case 1: 45 year old female, Indian-born
- At least 7 relevant GP contacts over 6/12 before referred to chest clinic (5 with cough, 1 ‘sore throat and slight LAD’)
- Visit #6, referred CXR (reported normal). Visit #7, the patient recalled visiting a relative in India with known TB 2/12 before first presentation. Referred chest physicians

Case 2: 50 year old female, African-Caribbean, HCW
- 3 GP contacts, 2 in same week (‘chest infection’); third was 5 months later (right sided chest pain)
- Referred for CXR and admitted to A&E from radiology (large pleural effusion)
Results 4

Case 3: 20 year old female, Afghan refugee
  – 2 GP contacts within 1 week (3/52 h/o night fever, febrile on presentation → Hb 80, ESR 120. Febrile tachycardic, admitted via medics on second presentation)

Case 4: 48 year old male, UK-born African-Caribbean
  – 3 GP contacts over 7 weeks, 1 A&E attendance (cough, chest pain, wheeze, night sweats). Referred CXR on visit #3 → TB service direct from radiology (perihilar shadowing)

Case 5: 52 year old male, white Irish
  – Ex 20/d smoker. 5 presentations over 3 months, worsening cough, episodes haemoptysis. CXR- calcified nodules, referred chest clinic. Dx: latent TB, COPD (TB cultures –ve)
Results 5

Case 6: 16 year old female, adopted child, Congolese-born
- GP noticed lack of BCG scar at routine fostering medical → referred to nurse-led BCG clinic
- Strongly positive Mantoux test, referred TB service, CXR: ?previous TB. CT: “bud nodularity”. Regular outpatient monitoring, started TB treatment several months later.
Lessons/Conclusions

• Think TB!
  – chronic cough
  – early CXR/referral in susceptible groups (migrants from high risk countries, homeless, drug and alcohol misuse, imprisonment)
  – “Have you been/spent time overseas?”

• Practice/system issues
  – consider local demographics
  – prevention and screening of vulnerable groups.

• Can we be more systematic?