Tuberculosis in Birmingham

A report from Overview & Scrutiny

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Preface

By Cllr Deirdre Alden

When the subject of the vaccination programme for tuberculosis was debated at full Council last year, it generated a wide and sometimes emotional resFOw2qN::PPO 2IYPNPPK:YOn2qN9P:KEOa2qN

Summary

Birmingham has one of the highest tuberculosis (TB) incidences of any European city and it is a significant public health problem, with a disproportionate impact on particular communities. Transmission is still happening in Birmingham: around a third of cases of TB diagnosed here are acquired here. In spite of the fact that the incidence of TB in the world is slowly dropping, the UK and especially London and Birmingham are bucking the general trend. People are still dying of TB in Birmingham in the 21st century.

Summary of Recommendations

1 Introduction

1.1 Some important facts about TB

1.1.1 Tuberculosis (TB) is a serious but treatable infectious disease commonly affecting the lungs, but which can involve any part of the body.

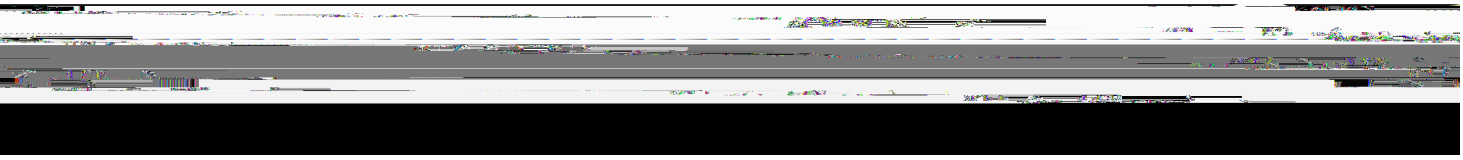
1.1.2 TB is quite difficult to catch. Prolonged close or repeated contact with a person with infectious TB, for example someone living in the same household, is usually required for the infection to be passed on. It is usually spread by the cough of an infected person.

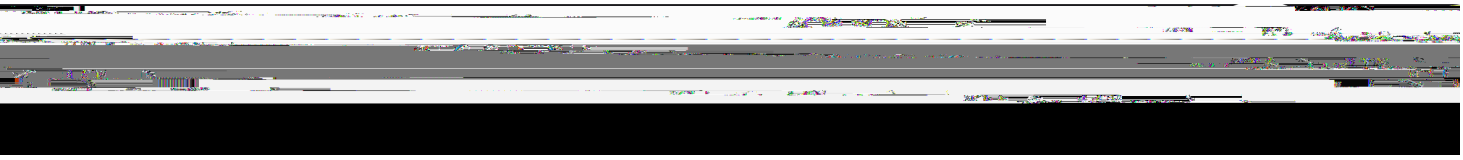
1.1.3 People are at higher risk of TB if they have lived in parts of the world where TB is more common. The disease follows patterns of migration and is therefore more common in certain ethnic groups, especially in people who were born abroad.

1.1.4 Not everyone who is infected will develop serious symptoms. Around 90% of otherwise healthy people who have come into contact with and been infected with the TB bacteria will not develop the disease. Of the 10% who develop infectious disease, up to half will do so within the first two years while the remainder develop the disease later on. It may take many years before someone infected with TB develops the disease.

1.1.5 For the majority of people who become infected with TB, the bacteria become inactive without causing disease but they remain alive in the body and can become active later in life. This is called latent TB infection. Latent TB can become reactivated and cause TB later in life especially if a person's immune system becomes weakened through, for example, old age, some medical treatments, serious illness, poor diet, or through generally poor living conditions.

1.1.6 Compliance with treatment is important. TB is slow growing which means that because the TB lies dormant, short periods of antibiotic treatment can be ineffective. Therefore antibiotic treatment needs to be for at least 6 months and the patient needs to take the full course as prescribed to fully eliminate the infection. Lapsing on treatment





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1.4 Evidence-gathering for the review

1.4.1 Councillor Graham Green recommended that the Committee should base its review on a 2004 Department of Health report "Stopping Tuberculosis in England: An action plan by the Chief Medical Officer" (CMO) that was aimed at driving a sustainable increase in local and regional TB prevention and control activities as well as stimulating the development and strengthening of TB services. The Scrutiny Committee therefore decided to structure its evidence gathering for this review to reflect the actions suggested in the CMO's 2004 report. These were:

- Increased awareness;
- Strong commitment and leadership;
- High quality surveillance;
- Excellence in clinical care;
- Well organised and co-ordinated patient services;
- First class laboratory services;
- Highly effective disease control at population level;
- An expert workforce; and
- Leading edge research.

1.4.2 The review group is grateful for the large volume of detailed and helpful evidence which was received from a variety of engaging and well-informed witnesses. The detail of the evidence gathered was too extensive to include in one report and so it has been summarised in a separate evidence report, copies of which are available via the scrutiny office.

2 BCG Immunisation

2.1 The history of BCG immunisation

largely under control after centuries of being one of our major killers. This was achieved through a variety of measures including better nutrition and housing, milk pasteurisation, the introduction of effective drug treatments, early detection through mass miniature chest x-ray programmes, public

2.2.2 The aim of the UK BCG immunisation programme is to immunise those at increased risk of developing severe disease and/or of exposure to TB infection. The current policy which is in accordance with the current guidance is to vaccinate babies in high incidence areas only, rather than routine vaccination of adolescents who test negative for tuberculin. There are many reasons for this.

2.2.3 Distribution of TB has changed greatly since the BCG programme began. The annual risk of infection in the general population has declined significantly and the disease has become increasingly restricted to identifiable segments of the population and in particular to immigrant communities. Against this background routine vaccination of all children in schools is not cost effective because the number of cases in people born in the UK reached an all time low in 2003. The vaccine provides a reasonable amount of prevention for 10-15 years only if given to young babies, and protects for fewer years the later it is given. If given to adults it provides little or no protection. For these and other reasons scientific advice is that universal vaccination is not cost-effective. Research is currently being done on whether it would be cost-effective to vaccinate all babies irrespective of whether or not they are in high incidence areas.

2.2.4 JCVI, NICE and the Green Book express a similar line with regard to BCG policy. They all state that BCG vaccinations should be targeted at high risk neonates. None of these expert bodies and none of the expert witnesses who came to give evidence to the Members, recommended that children should be routinely vaccinated. There is no evidence to suggest that TB rates in children are increasing and expert opinion and the available guidance all support the policy of selective immunisation of high risk groups using neonatal BCG. Indeed, in relation to Birmingham there were 27 cases of TB in children (aged 0-18) in 2010, a fall from the previous year. The reintroduction of routine vaccination of all children in schools is not the answer. The solution is to ensure that infants in high-risk areas are protected and those in populations most at risk are progressively screened, treated and followed up.

2.3 Implementation in Birmingham

2.3.1 The national guidance published by CMO in 2005 recommended BCG vaccine for “all infants living in areas where the incidence of TB is 40 per 100,000 or greater”. An area was defined in the 2005 DH guidance as a local authority.

2.3.2

draft strategy where one of the recommended lines of action is to review the BCG immunisation programme including an audit of the neonatal programme.

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4 Evidence based interventions

4.1 Increased awareness

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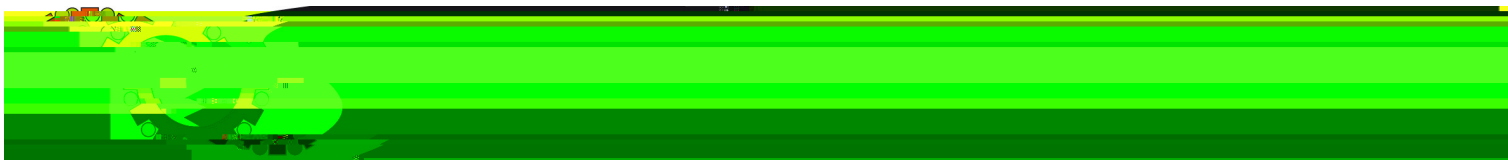

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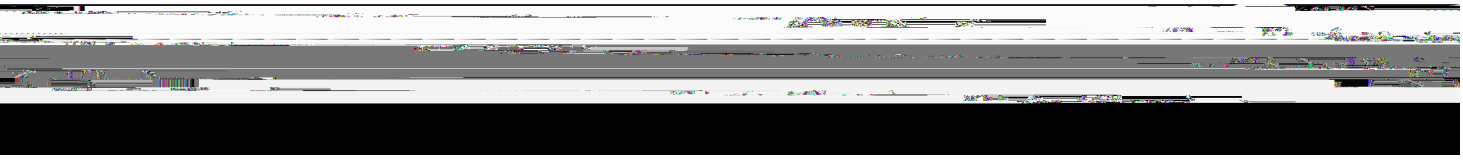


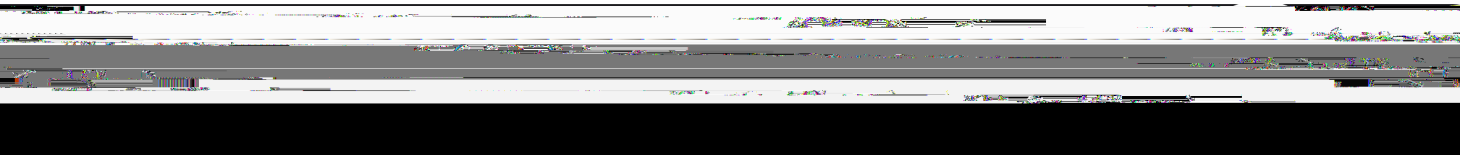
laboratory testing. The service must be holistic, focusing on each patient's circumstances and needs.

- TB services provided in high-incidence areas should include TB-specific outpatient clinics attended by the multidisciplinary TB team.
- A lead clinician should have overall responsibility for the diagnosis and possible treatment of TB.
- Each patient should have a TB nurse as their key worker.
- There should be a TB network in the hospital to ensure effective diagnosis, liaison and

patients on DOT. Evidence presented to the members suggested that more use could be and needs to be made of third sector and community organisations and community pharmacists to be DOT supervisors. DOT is sometimes needed every day, but in other cases it can be effective if only done three times a week.

4.6 First class laboratory services

4.6.1 The aim is to provide laboratory services of a consistent high quality which support clinical and public health needs. Evidence was presented from th



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