Improving patient outcomes in TB

P160 TREATING TB PATIENTS WITH NO ENTITLEMENT TO SOCIAL SUPPORT—WELCOME TO THE SOCIAL JUNGLE

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Background In the UK, TB medication is free but access to additional resources necessary for treatment completion is conditional. Patients with no recourse to public funds (NRPF), including undocumented and some European Economic Area migrants, have no rights to benefits, public housing or social care. The International Union Against Tuberculosis and Lung Disease (IUATLD) recommends that undocumented migrants with tuberculosis (TB) should receive free treatment and not be deported until completion of treatment. We used case reviews to explore how this guidance translates into current practice in London.
Methods We reviewed clinical, social circumstances and treatment outcomes for 32 NRPF patients with active TB referred from September 2007 to June 2010 to Find and Treat, a pan-London multi-disciplinary project developed to strengthen TB control in hard-to-reach groups.
Results The case reviews demonstrated that, while TB medication is free, lack of access to public funds severely compromises treatment access, completion and cure. Patients are unable to pay for transport to attend clinic appointments, buy food or access accommodation. Many (7/32) in fact were sleeping rough. More than a third (10/32) had resistant forms of TB, including 3 to a single drug (Isoniazid) and 7 with Multi Drug resistance (MDR). Despite close working relationships with Border Control Agencies, threat of deportation is a reality. Nine patients (28%) were lost to follow-up care, of which almost half (4/9) have never been found. Consequences included unsupervised medication, street homelessness, hospital admission (including for malnutrition) and treatment interruption and default.
Conclusion Though ensuring access to free treatment, current guidance does not address the wider determinants of health in tuberculosis. This results in severe inequity of care, and poor treatment outcomes with potentially serious public health implications. Political commitment to provide for basic social needs as well as free medication for all patients is required to effectively control TB.

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P161 GLOBAL PREVALENCE OF CHRONIC PULMONARY ASPERGILLOSIS (CPA) FOLLOWING PULMONARY TUBERCULOSIS (PTB)

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Background One of the sequelae of PTB is the development of CPA, with or without an aspergilloma. We estimated the global 5 year period prevalence of CPA.
Methods Estimation of the number of cases of PTB and deaths was made by the WHO. The frequency of pulmonary cavities after PTB treatment varied from 8% (Vietnam) to 35% (Taiwan), with rates in South Africa and US of 21–23% and Brazil of 30%; we used a rate of 22% except in Europe (12%). CPA (pulmonary cavity(s) + positive Aspergillus serology) annual incidence was estimated from PTB cases with cavities (22%) and without cavities (2%). Annual mortality following PTB varies from 5% (Denmark) to 15% (Uzbekistan) and is higher in HIV infected patients (26%) and those with MDR PTB (12%). We calculated the 5 year prevalence using annual attrition rates of 10–25%.
Results In 2007, WHO estimated 7.7M PTB cases globally, with 77.1% 1-year survival. We estimate that 372 385 patients worldwide developed CPA following PTB in 2007, distributed 11 420 (Europe), 12 610 (Americas), 98 551 (Africa), 20 615 (E. Mediterranean), 83 815 (W. Pacific) and 145 372 (SE Asia). In the UK, the annual new CPA caseload from PTB is estimated to be 118 cases with an estimated 5 year period prevalence of 433 cases. 5 year estimated CPA prevalence using median estimates above was:

	Annual attrition (death or surgical resection) rate		
WHO region	10%	15%	25%
Global	1372457	1173881	852048
Europe	42091	36001	26131
Americas	46475	39751	28852
Africa	363219	310667	225494
E. Mediterranean	75980	64987	47170
W. Pacific	308908	264213	191776
SE Asia	535783	458263	332625

Sensitivity analyses using 10% or 30% rates of cavity formation after PTB and CPA rates in those without cavities (1% or 4%) alter the estimates from a low global 5 year prevalence rate of 546 844 to a high of 1 786 421 patients living with CPA, at a 15% attrition rate.
Conclusions CPA following PTB is a significant public health problem in Africa, W. Pacific and SE Asia. A lack of contemporary research limits the precision of estimates regionally and globally.

P162 HOW MANY AND HOW MUCH? ASSESSING RESOURCE UTILISATION IN MULTI-DRUG RESISTANT TUBERCULOSIS (MDR TB) MANAGEMENT USING ROUTINELY COLLECTED HOSPITAL DATA

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Introduction MDR TB is rare in the UK, yet its incidence is rising. Although treatment is intensive, prolonged and generally costly for the patient and the treating TB centre, more TB services are offering such care. In the last 10 years, despite considerable relevant health service reorganisation, there has been no UK-based assessment of its resource implications, or guidance on how to determine this. Here we explore how routinely collected hospital data may assist in mapping service utilisation and also provide possible quality indicators of care.
Methods We performed a retrospective case-control study using MDR TB patients starting treatment between 2004 and 2007. Cases were matched to drug sensitive TB controls (1:2) treated in the same regional centre using age, sex, site of disease, HIV status and year of diagnosis. Data were abstracted from hospital clinical systems and matched analysis of service utilisation was performed.
Results 9 patients (8 pulmonary and 1 spinal) were included in the MDR TB and 17 (16 pulmonary and 1 spinal) in the control group. All patients completed treatment successfully. The Abstract P162 Table 1 indicates that MDR TB patients used a larger number of anti-tuberculosis drugs for longer, attended outpatients more frequently and made considerably greater use of biochemical, haematological and simple radiological assessments. However, there was no significant difference in total inpatient length of stay. All