

Treatment completion rates rose (82%–90%). The proportion of cases lost to follow-up reduced (2.5%–0%). The proportion of smear positive pulmonary cases with at least one risk factor on Directly Observed Therapy increased from 42% to 67%. Uptake of HIV testing rose (71%–89%). The proportion of pulmonary TB cases with at least 1 and >5 contacts identified both increased (64%–84% and 50%–67%, respectively).

In conclusion, within a short space of time cohort review has led to an improved index case management and contact tracing process in our service. It improves accountability, enhances patient management and facilitates staff education. Accurate, comprehensive and prompt data underpin this success. If this is sustained, we believe that cohort review will result in improved patient outcomes. It provides, also, an excellent structure within which advances such as the National Strain Typing project may be introduced to achieve maximal clinical impact.

# **P61 KAREL STYBLO COMES TO TOWN: STAFF PERSPECTIVES ON TB COHORT REVIEW**

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Since its creation by Dr Karel Styblo, the cohort review (CR) principle of systematically analysing treatment outcome of every notified TB case and contact investigation in a brief, timely, structured manner, has been implemented widely outside of the UK—with impressive results. In 2010, North Central London (NCL) TB service adopted the concept, trained staff members and put in practice CR. Given the resource implications that our service faced already, plus the potential for its introduction to result in an increased staff workload, we undertook a survey of how CR was perceived and the impact it had on those involved in its use.

After four rounds of CR (12 months from introduction), an anonymous on-line survey was sent to NCL staff members plus external participants and observers who had attended at least one review. The survey explored participant's personal and institutional response to the organisation, impact and outcome of CR's introduction. It was sent to 88 individuals. 72 (82%) completed the 10 min online questionnaire.

Over 95% felt that CR identified gaps in service, most frequently: collaboration with other TB services (69%), patient care (63%), collaboration with allied services (51%) and service organisation (45%). Just over a third felt that CR highlighted training needs, especially for contact tracing. 70% reported changes to their way of working—in particular altering practice in response to apparent weaknesses in their approach to contact tracing. 86% felt that CR led to improvement in the speed of interventions, better data quality and enhanced professional relations. A small number of staff noted negative consequences which largely reflected increase in initial work load.

Cohort review has enhanced our service provision. It is well received by local staff as well as external participants & observers. Our data are encouraging; and we hope will assist in promoting roll out to other parts of the country.

# **P62 DRUG INDUCED HYPOTHYROIDISM IN PATIENTS RECEIVING TREATMENT FOR MULTI-DRUG RESISTANT TUBERCULOSIS**

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**Introduction and Objectives** Drug-induced hypothyroidism is an uncommon adverse effect of treatment for multi-drug resistant

tuberculosis (MDR-TB), with a limited number of case reports from the 1950s reporting the issue. The most likely agents to cause hypothyroidism are *p*-aminosalicylic acid (PAS), and to a lesser extent Prothionamide, both commonly used in regimens to treat MDR-TB. We report five cases of MDR-TB, four of whom developed hypothyroidism while on treatment. This is the largest reported cohort to have developed drug-induced hypothyroidism as a result of MDR-TB treatment to date. We analysed if there were any predisposing or causative factors which may have contributed to patients developing hypothyroidism.

**Method** Patients were seen in clinic on a regular basis and possible adverse events evaluated by symptom review and clinical evaluation. Thyroid function tests (TFTs) were ordered based upon clinical suspicion. Following identification of hypothyroidism patients were started on thyroxine replacement therapy with monitoring of TFT levels to normalise them. Patient demographics were collected for analysis.

**Results** Four out of five patients (3 females and 1 male, aged 29–40 years) developed hypothyroidism following MDR-TB treatment with regimens containing PAS and Prothionamide. The dominant presenting symptom was lethargy, with one developing goitre and hair loss. All patients were from ethnic minorities born overseas in: India (1); Bangladesh (1) and Somalia (2). The 5<sup>th</sup> female Nepalese patient remained euthyroid. Patients had been in the UK from 3 to 6 years with no travel history of note since. Hypothyroidism developed at varying stages of treatment from 101–442 days. On analysis of predisposing or causative factors for hypothyroidism development, those patients who originated from areas of iodine deficiency (eg, Bangladesh) developed hypothyroidism sooner after commencing treatment and took longer for euthyroid resolution despite receiving increased dosages of thyroxine replacement therapy.

**Conclusion** Individuals originating from areas of iodine deficiency have an increased likelihood of developing drug induced hypothyroidism when receiving a regimen containing PAS and/or Prothionamide for MDR-TB treatment. As symptoms of hypothyroidism were generally non-specific and could easily be ascribed to TB, we suggest monitoring TFTs in all patients on prolonged treatment regimens containing PAS and/or Prothionamide.

# **P63 THE PREVALENCE OF VIRAL HEPATITIS IN PATIENTS UNDERGOING ANTI-TUBERCULOUS THERAPY**

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**Background** One-third of the world's population is thought to be infected with *Mycobacterium tuberculosis* (Mtb); the highest incidence rates for active disease are found in the WHO's South-East Asian and African regions. Hepatitis B virus (HBV) and Hepatitis C virus (HCV) each infect about 0.3% of the UK population. HBV/HCV are treatable but largely asymptomatic until advanced liver disease and/or cancer. Screening for HBV/HCV is recommended in high-risk individuals but is not routinely performed in TB patients. HBV/HCV share similar epidemiological "hotspots" to TB, and several studies, primarily in South America and East Asia, have shown an increased prevalence of HBV/HCV in TB patients and an association between HBV/HCV and Drug Induced Liver Injury