clinic. Challenging socio-economic conditions are detrimental to healthcare in multiple ways and it can be difficult for patients to access resources needed to manage their healthcare need effectively. However, we hope to assess the effect of deprivation in a control medical clinic to explore the specificity of this result to asthma clinics. It would also be valuable to investigate if these DNA rates are reflected in community clinics, as this may be an alternative way to deliver this service in order to reduce overall DNA rates in deprived areas.

REFERENCE

1 http://www.england.nhs.uk/2014/03/05/missed-appts/

Improving outcomes in TB

P251 TUBERCULOSIS IN OLDER VERSUS YOUNGER ADULT PATIENTS: A RETROSPECTIVE COMPARISON OF PATIENT CHARACTERISTICS AND TREATMENT OUTCOMES AT A MAJOR UK REFERRAL CENTRE

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Introduction and objectives Tuberculosis (TB) in older persons presents challenges related to diagnosis, management, comorbidities and polypharmacy potentially contributing to increased morbidity and mortality. This retrospective cohort review compares the baseline characteristics, diagnosis, management and outcome between older patients (OPs) (over 65 years) and younger patients (YPs) (25–35 years.)

Method All patients ≥65 years treated at Northwick Park Hospital during 2002–2014 were identified from London TB register; a comparison group of patients aged 25–35 years were randomly selected. Clinical, microbiological, radiological and biochemical parameters together with management and outcomes were obtained from electronic records. Characteristics of patients were compared between the two groups using Chi-squared and Kruskal-Wallis tests; analyses were performed using Stata (Stata Corp. 2013).

Results The comparison groups comprised 313 patients aged ≥65 years and 339 patients aged 25–35. Demographics, site of disease, TB culture, treatment regimens and outcomes are recorded in Table 1. 35.6% of OPs and 29.6% of YPs were symptomatic for >2 months at review in secondary care. Median duration to starting treatment from review was 17 days (IQR: 4–57) in OPs compared to 2 (IQR: 1–19) in YPs ($p = 0.001$). 44.8% of OPs experienced drug toxicity compared to 27.3% of YPs ($p = <0.001$.) Gastrointestinal symptoms affected 24.8% and 9.6% of OPs and YPs respectively ($p < 0.001$). There was no difference in prevalence of rash (4.8% in OPs,) arthralgia (2.4% of OPs,) or drug induced liver injury (6.4% of OPs, $p = 0.32$.) Comorbidities were higher in OPs, with diabetes present in 34.5%, hypertension in 52.6% and renal failure in 17.9% compared to 1.5%, 1.2% and 1.8% in YPs (all $p = 0.001$). 58.8% of ≥65 and 37.9% of YPs had inpatient admissions, with 30% of OPs admitted for >10 days ($p = <0.001$). Completion was 78.7% and mortality 16.0% amongst OPs, versus 91.2% with no deaths amongst YPs (both $p = <0.001$).

Conclusion These data characterise the delays in presentation and treatment initiation in older patients who also experience a more complicated treatment course with an increased side effect profile, more variation from standard quadruple therapy, lower completion rates and poorer outcomes. This, together with longer inpatient stays impacts patients, but also has financial implications for services.

P252 A RETROSPECTIVE EVALUATION OF THE DIAGNOSTIC UTILITY OF ADENOSINE DEAMINASE IN PLEURAL TUBERCULOSIS IN A LOW-PREVALENCE AREA

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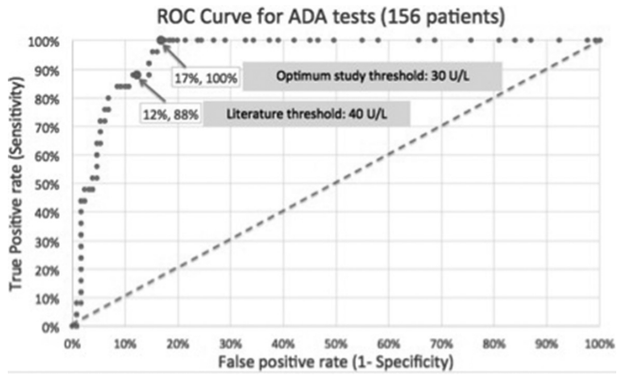
Introduction and objectives Pleural fluid adenosine deaminase (pfADA) is a validated diagnostic marker for pleural tuberculosis (TB) in high prevalence areas, with good sensitivity and specificity reported at a threshold of 40 U/L. However, in north-west Europe pfADA is not routinely measured, due to a lack of evidence as to its diagnostic utility in areas of low TB prevalence. The aim of this study is to assess the sensitivity and specificity of pfADA in a low-prevalence area, evaluating its diagnostic value for pleural TB.

Methods A retrospective analysis considered all pfADA-tested suspected pleural TB patients within one hospital trust from 2009–2015. This cohort was then divided into two groups: those with a confirmed diagnosis of pleural TB and those without pleural TB. Those without pleural TB were used as a control group, to determine the sensitivity and specificity of pfADA at various thresholds.

Results Of 156 patients tested for pfADA, 25 had confirmed pleural TB and 131 did not, with mean pfADA levels of 71.7 (±25.2) and 19.8 (±22.4), respectively. On a Receiver Operating Characteristic (ROC) curve (Figure 1), pfADA of 30 U/L has a sensitivity of 100%, specificity 83%, positive and negative predictive values of 53% and 100% respectively. At a threshold of 40 U/L, sensitivity was 88% with a specificity of 88%. The calculated area under ROC curve is 0.949 (95% CI 0.91–0.982).



Abstract P252 Figure 1

Conclusion Although the positive predictive value of pfADA may be lower in areas of low TB prevalence, its negative predictive value is unaffected, retaining its value as a worthy screening test to exclude pleural TB, allowing focus on obtaining adequate culture samples and biopsies in suspected pleural TB.

Abstract P251 Table 1 This table shows the demographics, site of diseases, treatment regimens and outcomes of older versus younger patients with the relevant p values. R = rifampicin, H = Isoniazid, Z = Pyrazinamide, E = Ethambutol, M = Moxifloxacin

		Age 25-35 years (n=339)	Age 65+ (n=313)	P-value†
		Frequency (%)	Frequency (%)	
Sex	Female	119 (35.2%)	136 (43.5%)	0.03
	Male	220 (64.9%)	177 (56.6%)	
Ethnic origin	Indian	246 (72.6%)	177 (56.6%)	<0.001
	Pakistani	12 (3.5%)	13 (4.2%)	
	Nepalese	17 (5.0%)	5 (1.6%)	
	Sri Lankan	12 (3.5%)	10 (3.2%)	
	Afghan	4 (1.2%)	8 (2.6%)	
	Black	30 (8.9%)	39 (12.5%)	
	White	11 (3.2%)	50 (16.0%)	
	Other	7 (2.1%)	11 (3.5%)	
Born in the UK	No	322 (95.0%)	272 (87.5%)	0.001
	Yes	17 (5.0%)	39 (12.5%)	
Site of TB	Pulmonary	84 (24.8%)	127 (40.6%)	<0.001
	Extrapulmonary	231 (68.1%)	160 (51.1%)	
	Both	24 (7.1%)	26 (8.3%)	
Sputum smear	Positive	31 (12.9%)	28 (16.7%)	0.28
	Negative	210 (87.1%)	140 (83.3%)	
TB Sensitivity	Negative culture	105 (33.9%)	111 (43.0%)	0.01
	Fully sensitive	184 (59.4%)	142 (55.0%)	
	Isoniazid resistant	18 (5.8%)	4 (1.6%)	
	MDR	2 (0.7%)	1 (0.4%)	
	XDR	1 (0.3%)	0 (0.0%)	
Initial regimen	RHZE	298 (90.0%)	69 (51.9%)	<0.001
	RHZM	13 (3.9%)	32 (24.1%)	
	RHEM	6 (1.8%)	7 (5.3%)	
	RHE	0 (0.0%)	10 (7.5%)	
	RHM	0 (0.0%)	6 (4.5%)	
	Other	14 (4.2%)	9 (6.8%)	
Outcome	Completed – non-pulmonary	227 (67.0%)	141 (45.1%)	<0.001
	Completed – pulmonary	82 (24.2%)	105 (33.6%)	
	Died	0 (0.0%)	50 (16.0%)	
	Lost to follow-up	11 (3.2%)	2 (0.6%)	
	Stopped	1 (0.3%)	7 (2.2%)	
	Transferred	18 (5.3%)	8 (2.6%)	

† P-values for comparisons of proportions from Chi-squared test (or Fisher's exact test if frequency <5)