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## INTRODUCTION

- ❖ Tuberculosis (TB) is a major public concern. Sputum smear conversion after starting TB treatment is under-studied.
- ❖ The objective of this study was to determine sputum smear conversion among TB patients after two months of treatment.

## RESULTS

- ❖ Sociodemographic characteristics and factors associated with among TB patients

Variables	Count (n)	Percentage (%)	P-value
<b>Gender</b>			
Female	18067	34.2	0.001
Male	34709	65.8	
<b>Age</b>			
< 24	8455	16.0	0.001
25 – 44	18453	35.0	
45 – 64	19006	36.0	
>65	6812	12.9	
<b>Nationality</b>			
Malaysian	47610	90.2	0.001
Non-Malaysian	5166	9.80	
<b>Chest radiograph</b>			
No lesion	1542	3.00	0.001
Minimal	26829	51.4	
Moderately advanced	21432	41.1	
Far advanced	2347	4.50	
<b>Smoking status</b>			
No	33587	63.6	0.001
Yes	19189	36.4	
<b>History of diabetes</b>			
No	40852	77.4	0.001
Yes	11924	22.6	
<b>HIV status</b>			
Negative	49211	96.3	0.684
Positive	1887	3.70	

## MATERIALS AND METHODS

- ❖ Data was retrieved from the TBIS System, a national reporting system by the Disease Control Division, Ministry of Health Malaysia. Descriptive and multivariable analysis were performed using Stata version 13.

- ❖ Logistic regression analysis of negative sputum status at 2 months post treatment with different variables.

Variables	aOR	CI 95%		P-value
		lower	upper	
<b>Gender</b>				
Female		1		
Male	1.217	1.12	1.32	0.001
<b>Age</b>				
< 24		1		
25 – 44	1.458	1.3	1.64	0.001
45 – 64	1.601	1.42	1.8	0.001
>65	1.417	1.23	1.63	0.001
<b>Nationality</b>				
Malaysian		1		
Non-Malaysian	1.198	1.08	1.33	0.001
<b>Chest radiograph</b>				
No lesion		1		
Minimal	0.229	0.17	0.31	0.001
Moderately advanced	0.487	0.43	0.56	0.001
Far advanced	0.72	0.63	0.82	0.001
<b>Smoking status</b>				
No		1		
Yes	1.117	1.04	1.21	0.004
<b>History of diabetes</b>				
No		1		
Yes	1.157	1.07	1.25	0.001
<b>HIV status</b>				
Negative		1		
Positive	0.961	0.804	1.147	0.658

## DISCUSSION & CONCLUSION

- ❖ The mean age of the patient was 43.95 ± 17.14.
- ❖ Out of 52,776 positive TB sputum smears, 92.6% (n=48,875) converted to negative after two months treatment.
- ❖ Patients who remained positive after two months treatment with no sputum conversion was significantly associated with male (aOR: 1.217, 95% CL: 1.119, 1.323), non-Malaysian (aOR: 1.249, 95% CL: 1.122, 1.389), smoking (aOR: 1.117, 95% CL: 1.035, 1.206) and history of diabetes (aOR: 1.157, 95% CL: 1.068, 1.253).
- ❖ Findings from this study shown delay in sputum smear conversion was associated with several factor as gender, citizenship status, smoking habit and diabetes status. Monitoring response to patient's treatment should be monitored closely for factors cause to treatment failure.

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