DISABILITY ASSESSMENT ON NOISE-INDUCED HEARING LOSS USING HEARING HANDICAP INVENTORY QUESTIONNAIRES FOR SOCSO COMPENSATION

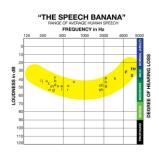
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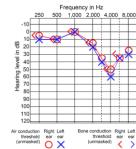
BACKGROUND

The current mechanism implemented by the Social Security Organization of Malaysia (SOCSO), is based solely on the severity of hearing impairment* using pure tone audiometric test. This method has been criticized for not considering the actual impact of NIHL on the subject's daily life, including their ability to hear in noisy environments and the resulting social and emotional disabilities.

Hence, exploring the methodology to improve compensation mechanism for workers in Malaysia who have suffered from Noise-Induced Hearing Loss (NIHL) is vital to provide a more accurate assessment of the impact of NIHL on workers and better compensation method, and eventually lead to more effective prevention efforts in the future.

* Frequency of 0.5kHz, 1kHz, 2kHz and 3kHz





METHODOLOGY

78 workers from a factory with various degrees of symmetrical high frequencies NIHL were recruited

Their hearing thresholds were divided into three sets of combination averages.

All workers underwent Hearing in Noise Test (HINT) and localization test to evaluate the effect of hearing loss on speech and localization ability.

HHIA questionnaires were administered, and its score used to evaluate the effect of hearing loss on their functionality.

The recommended new grid for SOCSO compensation.

Diagnostic Criteria	Class 0	Class 1	Class 2	Class 3	Class 4
3465123 average HL	≤25 dB (HL)	> 25 to 40 dB (HL)	> 45 to 70 dB (HL)	> 70 dB – 90 dB (HL)	> 90 dB (HL)
Grade modifier CHINT Score	NA	ABCDE	ABCDE	ABCDE	ABCDE
	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

RESULT

Test Conducted	Best Correlation of Average Hearing Loss	<i>r</i> -value	<i>p</i> -value	
Localization Test	3kHz, 4kHz and 6kHz	-5.71		
Composite HINT (CHINT)	246 5122	0.559	p < 0.01	
HHIA scores	346.5123	0.668		

Frequency (Hz)	0.5	1	2	3	4	6		
Threshold (dBHL)	25	25	25	45	60	45		
A	30						Average	10
Average	50				3465123	40		
Average all	37.5							

The final algorithm for SOCSO compensation for PTA is 3465123 average HL

CONCLUSION

The average of 0.5, 1, 2, and 3 kHz plus the average of 3, 4, and 6 kHz is proposed to be used as the determinant for functionality assessment. We advocate adding HINT score as a grade modifier to the compensation rate.

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