

Otosclerosis online: an analysis of quality, reliability and readability of otosclerosis information websites

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Abstract

Introduction: Several therapeutic options are usually discussed for otosclerosis management. Patients seek medical advice from an ENT specialist but are also increasingly using the internet for medical issues. This study intends to assess readability and quality of websites with information on otosclerosis. **Materials & Methods:** This is a cross-sectionnal study performed in a tertiary care center. The results of the first 2 pages of a Google search with the keyword “otosclerosis” were reviewed by two independent investigators. Readability was assessed with the Flesch–Kincaid Grade Level (FKGL), Flesch Reading Ease Score (FRES) and Gunning Fog Index. For quality and reliability assessment, the 16-items DISCERN instrument was used. Spearman’s coefficient was used for correlations, and multivariate analyses of variance were used to assess differences. Inter-rater agreement was evaluated with concordance correlation coefficient. **Results:** 18 websites were included. Two websites (11.0%) were authored by academic institutions, 5/18 (28%) by government agencies, 6/18 (33%) by professional organizations and 5/18 (28%) were medical information websites. The mean DISCERN score of the 18 websites was $40.2 \pm 8.4/80$ (range, 23.5–54), corresponding to “fair” quality. The mean FRES score was 43.27 ± 10.6 , and the the mean FKGL was 11.43 ± 2.30 , corresponding to “difficult to read”. The mean Gunning Fog index was 12.90 ± 2.19 (range 9.81- 18.20), corresponding to a “college freshman” level. **Conclusions:** This study shows that internet information on otosclerosis has an overall low readability, while the quality is heterogeneous and varies from “poor” to “good”. Efforts should be made to improve the readability of otosclerosis websites.

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Country	Website	DISCERN 11 - Reliability										DISCERN 12 - Quality										DISCERN 13		FRES		Gunning Fog	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
10	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
13	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
18	ENT	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2