

## AB155. SOH23ABS\_003. Metatarsal stress fractures: an analysis of readability and quality of online health materials

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**Background:** Patients are increasingly accessing health information via the internet. Our aim was to assess the quality and readability of online patient education materials regarding metatarsal stress fractures. We hypothesised that this information would be too difficult for the average patient to read and of a lesser quality than desired.

Methods: A search of the top 50 results on 3 search engines (Google, Bing, Baidu) was completed (MeSH "metatarsal stress fracture", "metatarsal stress fractures"). Readability of these websites was calculated using www.readable.com, producing 3 scores: Gunning-Fog (GF), Flesch Reading Ease (FRE) and Flesch-Kincaid Grade (FKG). Quality of the retrieved webpages was analyzed using Journal of American Medical Association (JAMA) benchmark criteria and the Health On the Net (HON) code toolbar extension. Results: In total, 77 unique websites were identified. The mean scores were: FRE 56.34±16.1, FKG 8.36±2.8 and GF 9.35±3.4. This corresponds with most webpages being pitched to a grade 8-12 reading level. Most webpages per the FRE score (n=47, 61%) were pitched at a grade 10 reading level and above. The GF index identified 20 webpages (26%) aimed towards readers of a grade 7 level or below. Approximately 13% (n=10) displayed a current HONcode certificate. Most websites (n=35, 45.5%) didn't meet any of the JAMA criteria.

Conclusions: This study uncovers the high difficulty and poor quality of online health materials relating to metatarsal stress fractures (MSFs), potentially contributing to negative health outcomes. Given the relationship of health literacy and patient outcomes, it is vital that we address these deficiencies swiftly.

**Keywords:** Health literacy; metatarsal stress fracture; orthopaedic surgery; patient education; sports injury

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## **Footnote**

*Conflicts of Interest*: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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