Publication output of French orthopedic and trauma surgeons: Quantitative and qualitative bibliometric analysis of their scientific production in orthopedics and other medical fields.

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Résumé:
Bibliometric analysis is being used more and more in orthopedics and traumatology. However, the quantity and quality of publications authored by French orthopedic and trauma surgeons outside their discipline have never been analyzed, nor has the change in the quality of orthopedics publications. This led us to carry out a bibliometric analysis to answer the following questions: 1) How has the quantity of scientific production by French orthopedists changed over the past 10 years? 2) How has the quality of the overall scientific production by French orthopedists changed over the past 10 years? From 2008 to 2017, the production of French orthopedists has increased in quantity and quality in orthopedics and other medical fields. The analysis was performed by cross-referencing the list of SOFCOT (French Society for Orthopaedic Surgery and Traumatology) members with the French SIGAPS database and the InCites platform. Out of 3979 SOFCOT members, 972 (24%) had authored publications during this period and were included in the analysis. Several indicators were analyzed: number of publications; SIGAPS score (production quality) for the various Web of Science (WoS) categories; number and percentage of publications in the top 1% and top 10% (most highly cited articles worldwide). The "Orthopedics" discipline was still the most prevalent with 68% of all publications identified. The "Surgery" discipline was stable, and the share of publications had increased in five other disciplines: Sports Sciences, Clinical Neurology, Emergency Medicine, Engineering-Biomedical and Material Science-Biomaterials. Of the 727 journals indexed in PubMed in which at least one author is a French orthopedic or trauma surgeon, 79 journals (11%) had at least 10 articles authored by a French orthopedist, making up 4680/6056 published articles (77%) during the study period. The highest SIGAPS score was in the "Orthopedics" discipline followed by "Surgery", and then by "Sport Sciences" with a large number of publications in the SIGAPS B category. Publications in "Orthopedics"
category A and B journals increased 14% during this period. When all disciplines are pooled, the share of publications in SIGAPS A, B and C categories increased by 10% from 2008 to 2017. The largest increase in publications for categories A and B and the top 1% and 10% was in "Sports Sciences". Over the past 10 years, French orthopedists have continued to increase their scientific production in the orthopedics field and in related fields such as Sport Sciences, Clinical Neurology and Biomedical Engineering. The quality of the scientific production of French orthopedists in their discipline and outside of it has greatly improved, as evidenced by the shift toward SIGAPS A and B journals. IV, retrospective study without control group.

**MeSH:** Bibliometrics|Databases, Factual|Efficiency|France|Humans|Journal Impact Factor|Orthopedics|Qualitative Research|Retrospective Studies|Surgeons|Traumatology

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