Association of academic rank and seniority with cumulative orthopedic surgery CMS payments from 2014 to 2020

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INTRODUCTION: The Centers for Medicare & Medicaid Services (CMS) Open Payments Program (OPP) collects and makes available to the public data on payments from reporting entities, which are certain drug, device, biologicals, and medical supplies manufacturers, to physicians, non-physician practitioners, and teaching hospitals. CMS began collecting data on industry funding in 2013. Prior studies have shown an association between academic rank and seniority with yearly CMS payments. The objective of this study is to examine whether a similar correlation exists with cumulative CMS general payments data reported over the current operating lifespan of the OPP, from 2014 - 2020.

METHODS: Data on all orthopedic surgery faculty affiliated with all United States orthopedic surgery programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) was collected using program websites and physician networking websites such as Doximity. CMS OPP general payments data was collected from openpaymentsdata.cms.gov from all available years (2014 through 2020). The CMS general payments category includes all payments for royalties, licensing, consulting, travel and lodging, speaking, and similar services - it only excludes payments to fund research and for ownership in a company. Physicians were separated into groups based on years in practice: group 1 was 0-10 years, group 2 was 10-20 years, group 3 was 20-30 years, and group 4 was 31+ years. Physicians were also categorized by their academic rank: assistant professor, associate professor, and professor. Statistical analysis was used to analyze the relationship between seniority, academic rank, and published CMS OPP general payments.

RESULTS: The mean general payments ± standard deviations for group 1, 2, 3, and 4 physicians were $25,613.03 ± $103,990.53, $135,996.93 ± $659,481.66, $305,527.19 ± $1,052,030.38, and $ 408,867.73 ± 1,628,532.97 respectively. More senior physicians were found to have significantly higher general payments than less senior physicians except when comparing the two most senior groups - there was no significant difference found between the payments of group 3 and group 4 physicians: 4 > 3 ($p = 0.299$), 4 > 2 ($p < 0.01$), 4 > 1 ($p < 0.01$), 3 > 2 ($p = 0.03$), 3 > 1 ($p < 0.01$), 2 > 1 ($p = 0.042$). The mean general payments ± standard deviation for assistant professors was $32,019.28 ± $170,047.15. The mean general payments ± standard deviation for associate professors was $121,961.45 ± $758,539.80. The mean general payments ± standard deviation for professors was $439,637.05 ± $1,412,694.47. Each academic rank was found to have received a significantly greater amount in general payments than lower ranking academic orthopedists: professor > associate professor ($p < 0.01$), professor > assistant professor ($p < 0.01$), associate professor > assistant professor ($p = 0.028$).

DISCUSSION AND CONCLUSION: The implementation CMS OPP was predicted to affect the nature of fiscal interactions between healthcare providers and reporting entities. Over the operating lifespan of CMS OPP, current trends in payments have begun to settle as evidenced by cumulative payment data. This study demonstrates that academic rank and seniority (with the exception of the two groups of physicians with the highest number of years in practice) of academic orthopedic physicians are directly correlated with the amount of general payments these physicians receive. These results support the trends found in earlier studies which only analyzed payments from a single year.