

Nworie K¹, Onunka O², Akumu JE³, Duru EE⁴, Onyekwum CA⁵, Agbom UE¹, Okolo CP²

¹University of Nigeria, Nsukka, EN, Nigeria
²National Orthopaedic Hospital, EN, Nigeria
³Makerere University, Kampala, Uganda
⁴University of Utah, Salt Lake City, UT, USA
⁵University of Arizona, Tucson, AZ, USA



BACKGROUND

Osteoporosis is an important risk factor for fragility or osteoporotic-related fractures in older people, and places a great medical and economic burden on the healthcare system [1]. There is currently limited data available on the economic burdens of osteoporosis-related fractures in low- and middle-income countries (LMICs). The aim of this study was to investigate the direct healthcare costs and the factors that influence them for inpatients with osteoporotic (OP) fractures in Nigeria.

METHODS

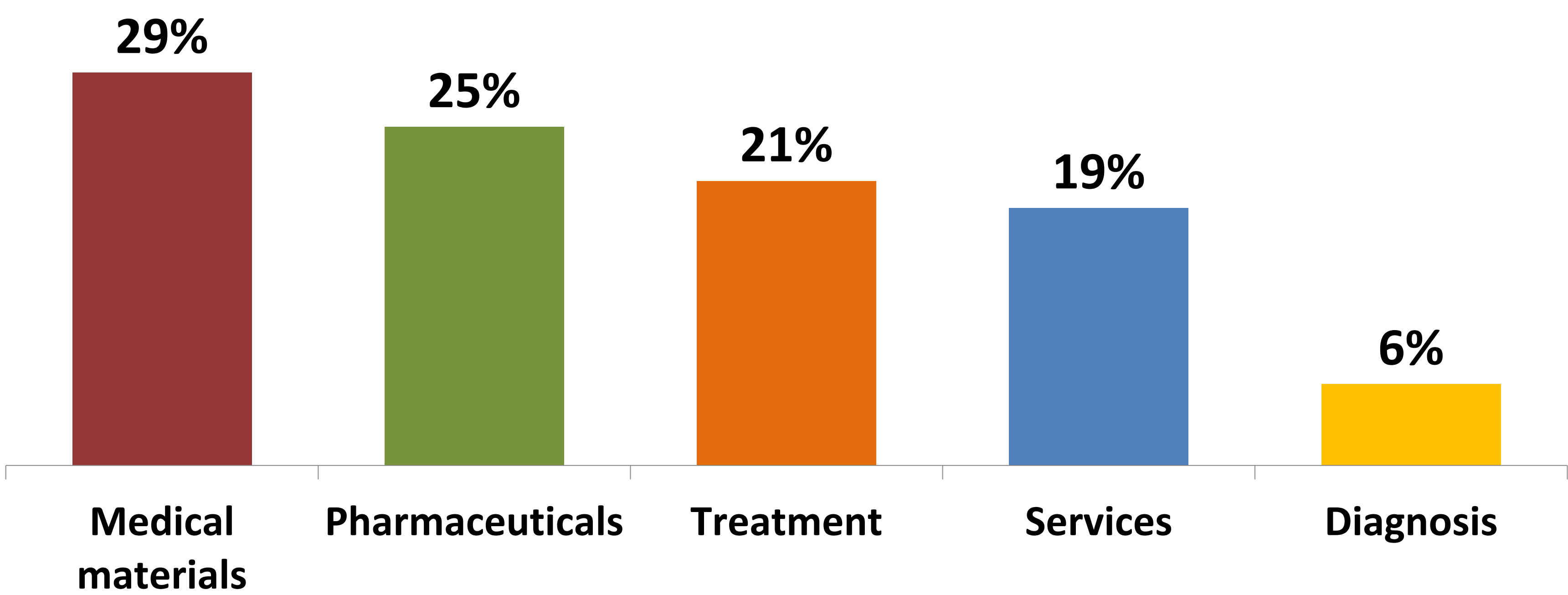
We examined the medical records system for inpatients (more than 50 years of age) who received surgical or non-surgical intervention for OP fractures at the National Orthopedic Hospital in Enugu between 2016 and 2020. Data on direct medical costs incurred during their hospitalizations were inflation-adjusted and categorized as service, diagnosis, treatment, medical supplies, and pharmaceutical costs. As a control, total medical costs for contemporaneous inpatients with osteoporosis were also collected.

RESULTS

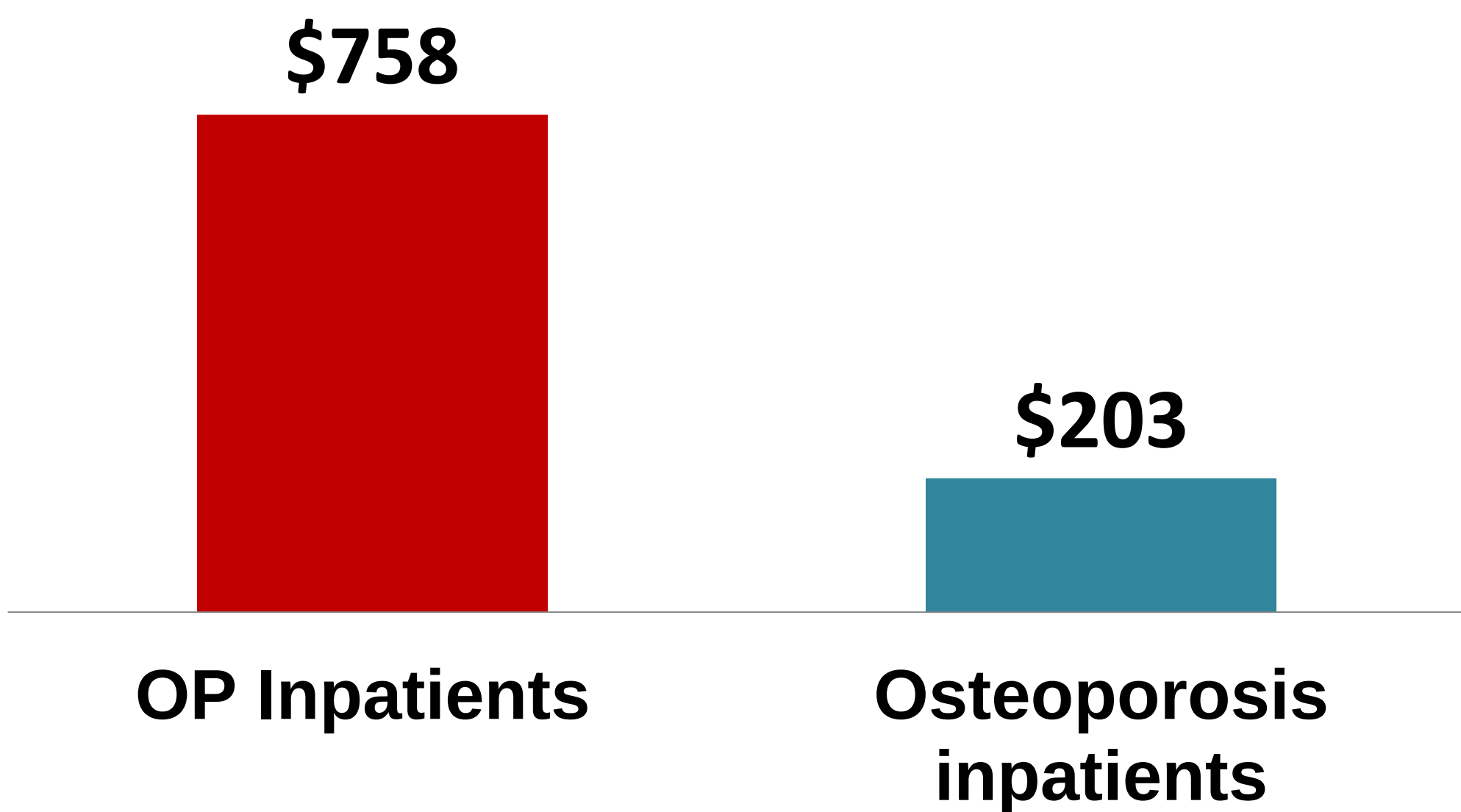
- Total of 120 Osteoporotic (OP) fracture inpatients and 640 controls.
- Mean age of 70 years.
- The median cost for OP fractures per patient was \$758 US dollars, which is 3.5-fold higher than the cost for inpatients with osteoporosis (\$203, P < 0.001).
- The direct cost of medical materials accounted for the largest proportion (29%), followed by pharmaceuticals (25%), treatment (21%), services (19%), and diagnosis (6%).
- The median number of hospital admissions for OP inpatients was 2 times, with a median length of stay of 28 days.

- The major factors influencing the health care costs of OP inpatients were:
 - intervention approach (\$978 for surgical intervention versus \$182 for non-surgical intervention, P < 0.001);
 - infection of injury site (\$1,112 for infected site versus \$455 for non-infected site, P < 0.001) and;
 - prior traditional bonesetter (TBS) encounter (\$284 for those who encountered TBS versus \$182 for those who did not encounter TBS, P = 0.01).

Health care costs for inpatients with Osteoporotic fractures



Median cost osteoporotic fracture inpatients Vs. Osteoporosis inpatients



CONCLUSIONS

Medical supplies and pharmaceuticals accounted for more than half of the direct healthcare costs for inpatients with OP fractures. Surgical intervention, an infected injury site, and a previous TBS encounter were factors that directly impacted on the healthcare costs.

REFERENCES

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