



# Improving the reporting of economic evaluation in osteoporosis: the value of CHEERS 2022 statement

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## Editorial

Considering the limited availability of healthcare resources alongside major innovations in the management of osteoporosis, economic evaluations have played an increasing role in decision-making. Studies have particularly been conducted to assess the cost-effectiveness of anti-osteoporosis medications [1, 2], fracture liaison services [3], screening strategies [4, 5], or to define intervention thresholds [6]. The low quality of input parameters and poor reporting of these economic evaluations may, however, hamper their use by decision-makers and health professionals.

Using the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement [7] (which was regarded as minimum amount of information required for reporting economic evaluations), in 2015, Hiligsmann et al. [1] assessed the quality of reporting of cost-effectiveness analyses of anti-osteoporosis medications published between 2008 and 2013, revealing that the quality of reporting was largely insufficient for several articles.

In 2019, a working group [8] was convened by the European Society for Clinical and Economic Aspects of Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (ESCEO) and the US branch of the International Osteoporosis Foundation (IOF) to provide guidance for the design, conduct, and reporting of economic evaluations in osteoporosis to improve their transparency, comparability, and methodologic standards. Acknowledging the importance of reporting, and the widespread recognition and acceptance of the CHEERS statement (published in 2013), the working group specifically recommended the use of the CHEERS statement for reporting any economic evaluation in the field of osteoporosis. In addition to CHEERS, the ESCEO-IOF guideline also recommended to report on and justify nine osteoporotic-specific reporting criteria. Since the publication of the ESCEO-IOF guideline, some cost-effectiveness studies in the field osteoporosis [9–11] have included CHEERS and/or the osteoporotic-specific reporting checklist as an appendix for reporting their study, while others [12–14] indicated that they followed the ESCEO-IOF guideline and adhered to CHEERS.

Since the original publication of the CHEERS statement, there have been several motivations to undertake an update [15]. Consequently, CHEERS has been replaced by the CHEERS 2022 statement [15], that consists now of a 28-item checklist, and an explanation and elaboration report with accompanying user tools and guidance compared to CHEERS 2013, new items have been added in CHEERS 2022 and relate to stakeholder (patients or service recipients, general public, community) involvement, reporting and availability of a health economic plan and characterization of distributional effects. The last is especially important in the field of osteoporosis as the cost-effectiveness could widely differ across marginalized patient populations, such as the very old, or women. In addition, the original language has been broadened to improve the applicability of CHEERS, and sharing of unlocked models is encouraged to improve the transparency.

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Recognizing the need and value of these changes, we support and highly recommend the use of CHEERS 2022 statement (in replacement to CHEERS) to report any economic evaluation in the field of osteoporosis, and to complement it with the nine osteoporosis-specific reporting criteria from the ESCEO-IOF guideline. Improving the reporting of economic evaluations will only serve to improve their transparency and quality, leading ultimately to increased trust, value, and use by decision makers.

## Declarations

**Conflict of interest** The authors declare no competing interests.

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