

MULTICRITERIA DECISION ANALYSIS (MCDA) TO IDENTIFY CRITERIA FOR GUIDING DECISION MAKING FOR POST-MENOPAUSAL OSTEOPOROSIS TREATMENT IN THE BRAZILIAN PUBLIC HEALTHCARE SYSTEM

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OBJECTIVES

Identify criteria for prioritizing osteoporosis treatments in postmenopausal women at very high fracture risk, based on the preferences of three groups of stakeholders: physicians (osteoporosis experts), patient association groups and public healthcare managers.

METHODS

A literature review identified criteria for treatment prioritization in patient population of interest¹⁻⁵. After that, three representatives from each stakeholder group recorded their preferences and weights among the validated criteria using the Analytic Hierarchy Process methodology⁶ in a MCDA panel.

RESULTS

- New hip fracture and clinical fractures appeared in the top five criteria for all groups. Only healthcare managers prioritized direct economic criteria* (49%).
 - Physicians considered fractures, especially new hip fracture (weight 26%), and adverse events (15%) the most important criteria for treatment prioritization, whilst tolerability, adherence and convenience were identified as the lowest priority criteria
 - Patient associations also considered fractures the most important criteria (25% to 11%), and considered economic criteria least important (1%)
- *excluding socioeconomic criteria, considered in the panel as an indirect economic criteria*

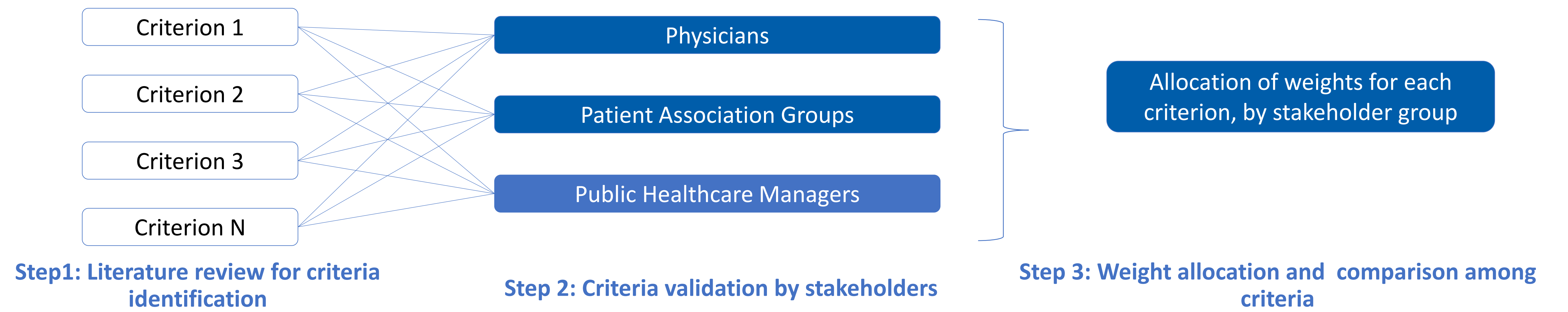


Figure 1: Overview of MCDA process

Efficacy	Safety	Convenience	Economics
<ul style="list-style-type: none">•Clinical fracture•Vertebral fracture•Non-vertebral fracture•Hip fracture•BMD	<ul style="list-style-type: none">•Clinically relevant adverse events•Tolerability	<ul style="list-style-type: none">•Adherence•Dosing convenience (dosage comfort)	<ul style="list-style-type: none">•ICER•Cost per responder•Budget impact•Socioeconomic impact

BMD = bone mineral density; ICER = incremental cost-effectiveness ratio

Figure 2: Selected criteria and subcriteria obtained after literature review and validated among participants of the panel

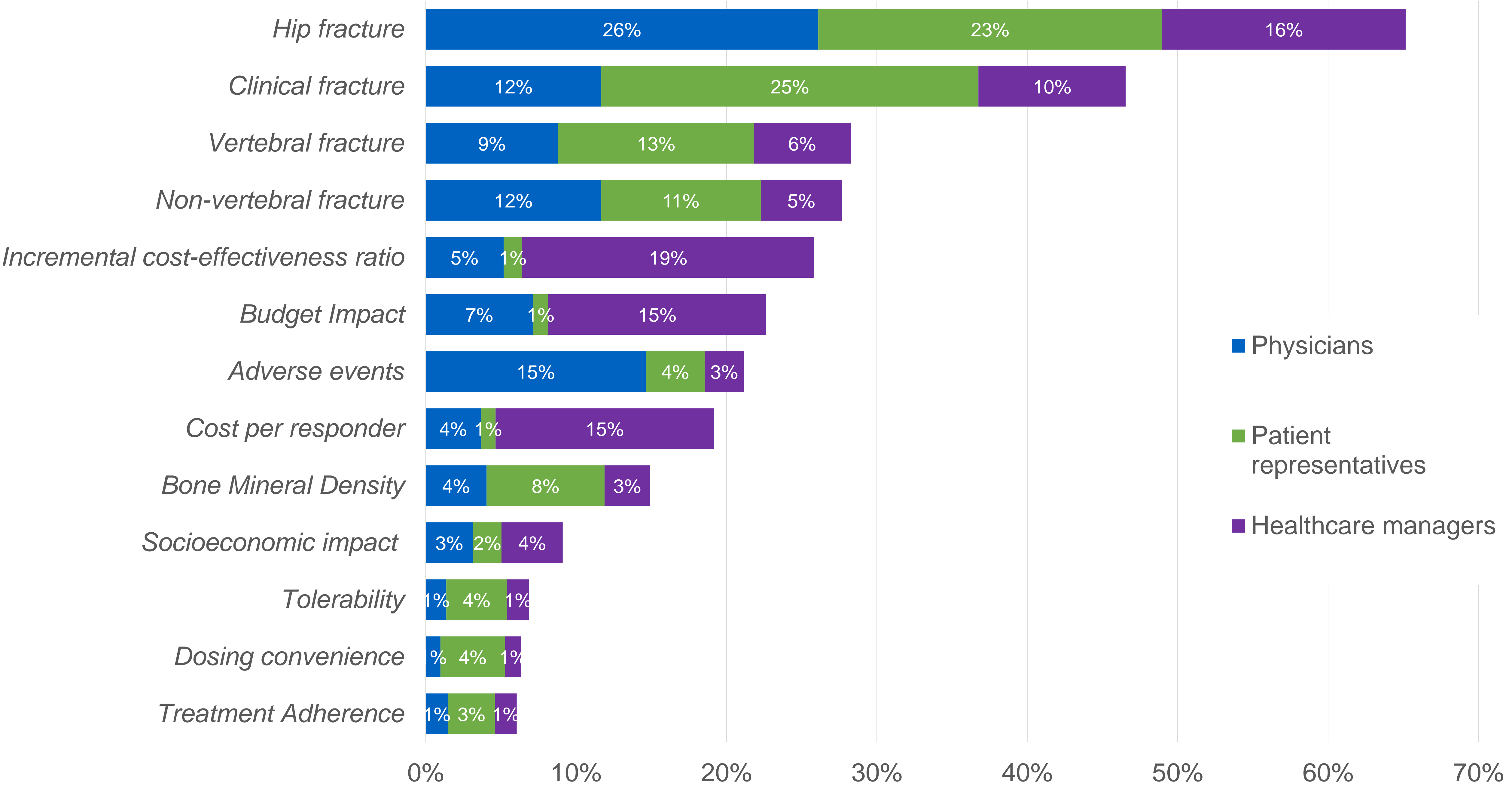


Figure 3: General weighting split by criteria and stakeholder group

CONCLUSIONS

Although weights varied across each group of stakeholders, reflecting different preferences and perspectives, treatment efficacy was prioritized for all. It is noteworthy that economic criteria have a high impact on decision making from the healthcare managers’ perspective but other criteria, such as dosing convenience, could have higher weight in health technologies assessment process, including patient preferences. These results have the potential to assist decision making and treatment prioritization for women with postmenopausal osteoporosis at very high risk of fracture.

CONFLICTS OF INTEREST

Mensor L.L., Rosim M.P., Marchesan T. and Rigo, D. are employees of Amgen. Sallum F. and Murta L. were contracted by Amgen to conduct the MCDA panel.

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