Developing Criteria for Lumbar Spine Magnetic Resonance Imaging (MRI) Using RAND Appropriateness Method (RAM)

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Abstract

Background: Studies show that a large proportion of healthcare offered may be inappropriate or unnecessary. Magnetic resonance imaging (MRI) is a new and expensive diagnostic technology which has been increasingly used all over the world. Moreover, this trend has been more rapidly increasing in Iran. Low back pain is a common disorder all over the world and MRI technique is one of the several ways to assess its cause.

Objectives: The present study aims to develop scenarios for lumbar spine MRI.

Materials and Methods: In the present study, the RAND Appropriateness Method (RAM) was used in order to reach consensus regarding developing scenarios for lumbar spine MRI. We generated scenarios from valid clinical guidelines as well as the experts’ opinion. The panel members included nine specialists from various medical specialties that had scored scenarios in two rounds, the first of which was without interaction, while the second one was with interaction.

Results: We extracted 97 scenarios for the lumbar spine MRI in the scenario extracting phase of the study and the panel members added 18 scenarios. After implementation of two rounds, the scenarios were categorized into three ranges. Sixty seven (58%) of the scenarios were considered as appropriate, 45 (39%) as uncertain, and three (2.6%) as inappropriate.

Conclusions: RAM is useful for identifying stakeholder views in settings with limited resources. Since RAM has precise instructions for consensus developing, a large number of scenarios were considered as uncertain. Therefore, more research has to be conducted on the issue.
Keywords: Lumbar Vertebrae; Magnetic Resonance Imaging; RAND, RAM; Clinical Scenario