

Health Technology Assessment for COVID19: an approach for the Horizon Scanning of health innovations

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Background:

The COVID-19 pandemic definitely changed the approach to technologies evaluation, firstly in terms of timeliness. In order to answer to this need, a new methodology was proposed, joining the elements of horizon scanning with the Multi-Criteria Decision Analysis (MCDA). In this work we describe the results of 2 case studies of application.

Methods:

By means of an assessment matrix, a multidisciplinary expert panel gave a score based on a Likert scale and related to potential value and perceived risk for each technology. Economic, clinical and ethical criteria were considered as a summary of Health Technology Assessment (HTA) main domains. The final scores were then weighted by the MCDA and a scatter plot defined 4 positioning scenarios according to the balance of values and risks resulted, each conducting to an appropriate recommendation (full HTA report or reject). A

Monte Carlo simulation was also carried out for the assessment of variability of results.

Results:

An individual protection device for COVID-19 and a contact tracing app were assessed. The first technology was placed in the “Danger Zone” of the graph, because of its high costs and organizational complexity. The second one was placed in the “Comfort Zone” of the graph, due to low costs and easiness of implementation and management. For this innovation a recommendation for a full HTA and a pilot testing was given. In both cases, the Monte Carlo simulation confirmed the results of previous analyses.

Conclusions:

The implementation of this new tool presented for the large amount of innovations created in response to COVID-19 could be supportive for decision makers, especially in pandemic times when a rapid answer is necessary. Improvements in the subjective judgement process, by introducing an objective approach, is now ongoing as it could enhance the strength of the final decision.

Key messages:

- In a pandemic time as the current, HTA should be as rapid as possible without losing scientific robustness.
- The methodology described could be an answer in support to the decision-making process, allowing an adequate and quick priority setting.