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CONFERENCE ABSTRACT

Health risk assessment and stratification in an integrated care scenario

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Background: Health risk assessment and stratification have proven highly relevant for large-scale implementation of integrated care by facilitating services design and case identification.

Aim: The principal objective was to analyse five health-risk assessment strategies used in the five regions participating in the Advancing Care Coordination and TeleHealth Deployment

(ACT) program (www.act-programme.eu): Scotland (UK), Basque Country (ES), Catalonia (ES), Lombardy (I) and Groningen (NL). A second aim was to explore the potential of population-based health risk predictive tools to contribute to risk prediction in the clinical setting.

Method: We characterized and compared risk assessment strategies among ACT regions by analysing operational risk predictive modelling tools for population-based stratification, as well as available health indicators. The risk assessment tool deployed in Catalonia (GMA, Adjusted Morbidity Groups) was used as an example to explore how population-based analysis can contribute to clinical risk prediction.

Results: The study indicated a high degree of conceptual agreement among the five ACT regions on the relevant role of population-based health risk assessment for regional deployment of integrated care. The entire ACT consortium shared its usefulness for service commission, case finding and screening. There was also consensus on the use of a population health approach as the optimal strategy for population-based risk assessment.

However, the health risk predictive modelling tools in place displayed marked heterogeneities that precluded comparability of the risk pyramid distributions across regions. We identified a clear need for evolving toward risk predictive modelling tools allowing proper quantification of the estimations. Likewise, different well-identified problems mostly associated to data reporting precluded appropriate comparisons of the recommended health indicators.

The current study identified transferability across regions and potential for evolving, that is flexibility, as two key requirements for any population-based health risk assessment tool. Factors such as: i) license binding constraints, ii) insufficient public availability; iii) lack of availability for inspection; and/or, iv) rigidity of some computational algorithms (i.e. due to inclusion of expert-based criteria in some morbidity groupers) are currently limiting transferability. These factors might also preclude adaptation of the current risk prediction tools toward evolving requirements such as: i) integration between healthcare and social services; and, ii) implementation of synergies between population-based and clinically oriented risk predictive modelling, as described in the study.

We acknowledge some intrinsic limitations of population-based predictive modelling in terms of strength of estimations. However, their potential for allocation of individuals into the risk stratification pyramid facilitates both design and implementation of preventive strategies that have shown high potential to generate healthcare value. Moreover, the study reports on the conceptual steps required for development of innovative strategies for clinical risk predictive modelling with potential to enhance its supporting role for decision making in the clinical scenario.

Conclusions: We acknowledge that further efforts should be devoted to improve both comparability and flexibility of current population-based health risk predictive modelling approaches. The novel strategy for enhanced clinical risk assessment requires prospective evaluation.

Moharra; Health risk assessment and stratification in an integrated
care scenario.