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CLASSIFICATION AND REGRESSION TREES HELP IN DEVELOPING EMBEDDED EVIDENCE- AND CONSENSUS-BASED GUIDELINES
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OBJECTIVES: Clinical evidence on the best therapies for patients with Myelodysplastic Syndromes (MDS) is incomplete; however, expert opinion is subjective, therefore we aimed at imbricating evidence- and experience-based knowledge as to provide complete and high-level information to the clinicians dealing with MDS.

METHODS: A systematic review of literature was performed and evidence was graded according to the Scottish Intercollegiate Guideline Network. For 4 specific interventions (chemotherapy, HLA typing, allogeneic bone marrow transplantation, wait-and-see) evidence gaps were completed through direct elicitation of both clinical experience and transposed evidence from 10 panelists. One hundred and two scenarios were built and the panelists were asked to score from 1 to 9 the appropriateness of each therapy in each scenario (RAND method). Appropriateness was inferred from the characteristics of the scenario (age; IPSS risk class; ECOG score of performance status; anemia; cytogenetics) with the technique of Classification and Regression Trees (CRTs) and a treatment algorithm was thus systematically built. ANOVA helped measuring the variability. RESULTS: Age (F = 572.2) and performance status (F = 5.010) were significantly related with the appropriateness of HLA typing and explained 85% of the variability; the root CRT split patients according to cutoff ages of 55 and 60 years. The appropriateness of transplantation also depended on age (F = 499.1) and performance status (F = 23.63). Indeed, the first split made by the CRT was based on cutoff ages of 40 and 55 years; further splits were based on the risk class: patients with INT-2/high risk had higher median appropriateness scores than INT-1/low risk patients, however, anemia and age modulated the appropriateness in INT-1 and low-risk classes. Age (F = 39.4), performance status (F = 27.8) and risk class (F = 65.5) explained 79% of the variability in chemotherapy appropriateness: the CRT first splitted patients based upon IPSS risk class and then upon age (>65 yrs). CONCLUSIONS: Guidelines can be based on both evidence and consensus of experts since CRTs are a suitable method for inferring treatment algorithms.

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HEALTH STATE VALUATIONS IN SUMMARY MEASURES OF POPULATION HEALTH
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OBJECTIVES: A health state valuation constitutes a scalar index of the level of health associated with a particular state on a meaningful cardinal scale anchored by perfect health and death. To date, there have been limited empirical data on health state valuations collected from representative sample surveys. WHO has embarked on measurement of health state valuations as a key component of its commitment to routine monitoring and reporting on the health levels of its Member States. METHODS: Household surveys were conducted in representative population samples in ten countries: China, Colombia, Egypt, Georgia, Indonesia, India, Mexico, Nigeria, Slovakia and Turkey. Individuals were presented with 10 health states described by brief labels and asked to describe each state using standardized questions on six health domains, to rank order the conditions, and to provide valuations of the states using a visual analogue scale (VAS). In parallel studies among highly educated respondents in each site, multi-method exercises were conducted in order to examine methods for adjusting VAS scores to correct for scale distortions. RESULTS: A total of 345,757 valuations were obtained from 32,781 respondents. For any given state, there was substantial variation in the descriptions along the six domains. There was considerable agreement in the mean VAS scores across countries, with most Pearson’s correlation coefficients greater than 0.8 and an intraclass correlation coefficient of 0.745. A large proportion of the cross-national variation in VAS scores was related to differences in the health state descriptions for each condition. CONCLUSIONS: It is feasible to collect information on health state valuations in general population surveys in diverse settings using VAS. New data collection tools and analytical methods can improve the cross-population comparability of data on health measurement and valuation. Further work is needed to examine variation in health state values both.

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ECONOMIC STUDY OF MALNUTRITION IN ELDERLY PATIENTS LIVING IN THE COMMUNITY: USE OF PROPENSITY SCORE TO ANALYZE OBSERVATIONAL DATA
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OBJECTIVE: To assess the cost of malnutrition and related comorbidities among elderly patients living in the community and determine the value of nutritional support. METHODS: Observational, prospective, longitudinal, cohort study with a 12 months follow-up, with 90 general practitioners in France. Two groups of doctors were selected based on historical prescribing practice: one with frequent (FNS) and one with limited (LNS) use of nutritional support. Three hundred seventy-eight elderly patients aged over 70 living in the community, either at home or in institutions, at risk of malnutrition or with established malnutrition. The observational design was preferred over the randomized option because it would not have been ethical to ask doctors to refrain from providing nutritional support when this was their normal practice. To adjust for baseline differences between