conducted in Iran, Turkey, and Saudi Arabia. The cost effectiveness of medications for non-communicable diseases was explored in 70 percent of the models. Cost-effectiveness thresholds based on gross domestic product were commonly used. International sources provided data on intervention effectiveness and health outcomes, while national sources were mainly used for the costs of resource use. Most models incorporated an assessment of parameter uncertainty, whereas other types of uncertainty were not explored. Studies from high-income countries were generally of higher quality than those from middle-income countries.
Conclusions: The number of published DAMs was low considering the available medicines and disease burden. Key aspects of high quality DAMs regarding model structure, input sources, and uncertainty assessment were not consistently fulfilled. Recommendations for future studies and policies included strengthening existing health economic capacities, establishing country-specific health technology assessment systems, and initiating collaborations to generate national cost and outcome data.

PD06 Automated Systems For Hospital Inpatient Safety: A Cost-Utility Analysis

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Introduction: Deployment of an electronic automated advisory vital signs monitoring and notification system to signal clinical deterioration is associated with significant improvement in clinical outcomes. This study aimed to estimate the incremental cost per quality-adjusted life-year (QALY) gained with an electronic automated advisory notification system, compared with standard care.
Methods: A decision analytic model was developed to estimate the cost effectiveness of an electronic automated advisory notification system, compared with standard care, in adults admitted to a district general hospital. Analyses considered the following: (i) cost effectiveness (cost/event avoided) based on a before-and-after study (n=3,787) that recorded rates of acute myocardial infarction, pulmonary embolism, acute pulmonary edema, respiratory failure, stroke, severe sepsis, acute renal failure, cardiopulmonary arrest, admission to the intensive care unit, and death; and (ii) the cost utility (cost per QALY) over a lifetime horizon extrapolated using published data. The analysis was conducted from the perspective of the National Health Services (NHS) in the UK.
Results: The automated notification system was more effective (2.7 fewer events per 100 patients) and provided cost savings of −GBP12.17 [−EUR14.07] per patient admission (95% CI: −GBP182.07 [−EUR211.20], GBP154.80 [EUR179.57]). The automated notification system was dominant over a lifetime horizon, demonstrating a positive incremental QALY gain (0.0287 QALYs, equivalent to approximately 10 days of perfect health) and a cost saving of −GBP55.35 (−EUR64.02). At a threshold of GBP20,000 per QALY (EUR23,126), the probability of automated monitoring being cost effective in the NHS was 0.81. The increased use of cableless sensors may reduce cost-savings, but the intervention remained cost effective at 100 percent usage (incremental cost-effectiveness ratio GBP3,107 per QALY [EUR3,594 per QALY]).
Conclusions: An automated notification system for adult patients admitted to general wards appears to be a cost-effective strategy in the NHS. The analysis suggests that adopting this technology could be good use of scarce resources. The impact of automated monitoring solutions on staffing warrants further exploration and may show additional value in adopting such technology.

PD07 Can Commencing Colorectal Cancer Screening At Age 45 Years Be A Good Investment? An Individual-Level Simulation Analysis In Germany

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Introduction: The effectiveness and cost saving advantages of colorectal cancer (CRC) screening have gained widespread scientific consensus. However, the rising incidence of early-onset CRC has challenged Germany's current screening program, which focuses on individuals aged 50 years or older. This study evaluated the potential cost effectiveness of initiating CRC screening in Germany at the age of 45 years.
Methods: The cost-effectiveness analysis utilized a validated discrete-event-simulation model, DECAS, which incorporates both adenomatous and serrated polyp pathways in CRC development. This model has been validated using German CRC epidemiological data and simulates the effects of screening interventions. It was used to compare four new CRC screening strategies starting at age 45 years (10-yearly colonoscopy, annual or biennial fecal immunochemical testing [FIT], or both) with the current screening strategy starting at age 50 years. The simulation, assuming perfect adherence, included a cohort of 100,000 individuals with an average CRC risk from age 20 to 90 years or death, applying a three percent discount with costs in 2023 Euros.
Results: The model outcomes included quality-adjusted life-years (QALYs) gained and total incremental costs, considering both CRC treatment and screening costs. Initiating 10-yearly colonoscopy only or FIT plus colonoscopy strategies at age 45 years yielded incremental gains of seven to 28 QALYs, with incremental costs of EUR28,360 to EUR71,759 per 1,000 individuals, compared with the current strategy. The incremental cost-effectiveness ratios varied between EUR1,029 and EUR9,763 per QALY gained. The FIT-only strategy was dominated by the current screening strategy. These findings remained consistent throughout the probabilistic sensitivity analyses.
Conclusions: The cost-effectiveness findings support initiating CRC screening at age 45 years with either colonoscopy alone or colonoscopy plus FIT, demonstrating substantial gains in QALYs and a

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https://doi.org/10.1017/S0266462324002757