OD18 Surrogate Measures And The Health Technology Assessment Of Cancer Drugs In Ireland: A Retrospective Analysis, 2017 to 2022

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Introduction: Surrogate endpoints are increasingly being used in the pivotal trials of cancer drugs to underpin (conditional) regulatory approval. We examined the relationship between the use of surrogate measures in pivotal trials underpinning cancer drug approvals by the European Medicines Agency (EMA) between 2017 and 2022 and health technology assessment (HTA) recommendations made by the National Centre for Pharmacoeconomics in Ireland (NCPE).
Methods: A previously published methodology was used to identify cancer drug indications that received (conditional) marketing authorization between 2017 and 2022, inclusive. EMA-approved cancer drugs were categorized using the following benefit categories, based on pivotal trial endpoints: overall survival (OS), progression-free survival (PFS), disease response (DR), and single-arm trials (SATs). The NCPE website was searched to identify indications that had undergone, at least, a rapid review (RR) assessment. The NCPE recommendation for each assessment was recorded. Additional data including the incremental quality-adjusted life years (QALY) gain reported in cost-effectiveness analyses were extracted for indications that had undergone a full HTA.
Results: One hundred and eight cancer drug indications were identified, comprising 68 cancer drugs. In 2017, OS, PFS, and SAT benefit underpinned equal proportions of approvals (28.6% each). In 2022, SAT underpinned the largest proportion of approvals (53.6%). As of June 2023, 77 indications (71.3%) had undergone at least a RR assessment; 31 indications had completed a full HTA appraisal. All of the indications underpinned by SAT evidence (n=7) received a conditional negative recommendation. Indications with SAT evidence had a mean incremental QALY gain of 1.88 (standard deviation [SD] 1.20), whereas indications with an OS benefit had a mean incremental QALY gain of 0.81 (SD 0.36).
Conclusions: The proportion of cancer drug indications receiving regulatory approval on the basis of SAT evidence, where no direct comparative evidence is available, is increasing. This results in additional uncertainty in the comparative benefit of cancer drugs supported by SAT evidence. The study is limited by the sample size of HTA appraisals included. Further in-depth analysis of factors influencing NCPE recommendations is needed.

OD19 Future Health And Economic Burden Of Cardiovascular Disease In Type 2 Diabetes In Qatar, From 2023 To 2032

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Introduction: The Middle East and North Africa region accounts for the largest prevalence of type 2 diabetes (T2D). Qatar ranks top 10 for global T2D prevalence, with 17 percent in 2022. Also, 50 to 70 percent of the cardiovascular events occurred in T2D. We sought to estimate the future health and economic burden of cardiovascular disease (CVD) in T2D from 2023 to 2032.
Methods: A dynamic multistate model in people with T2D was constructed. The demographic profile of the population was based on Qatari citizens and residents with T2D aged 40 to 90 years in 2022. First CVD events (i.e., myocardial infarction [MI] and stroke) were calculated via the 2013 Pooled Cohort Equation using data from Primary Health Care Corporation. Recurrent CVD events were sourced from the global Reduction of Atherothrombosis for Continued Health (REACH) registry. Outcomes were MI and stroke, years of life lived, quality-adjusted life years (QALYs), total direct and productivity loss costs. Utility and cost model inputs were drawn from published sources. The model adopted a Qatari societal perspective.
Results: The model estimates 123,524 non-fatal MIs (95% uncertainty interval [UI]: 116,923, 130,065), 70,466 non-fatal strokes (95% UI: 67,945, 73,476) and 15,410 CVD deaths (95% UI: 15,217, 15,794), respectively. T2D population accrued 4,834,146 (95% UI: 4,781,235, 4,881,695) total years of life lived and 3,817,246 (95% UI: 3,756,963, 3,870,616) total QALYs. Direct costs accounted for 59.52 percent of the total costs, with a projection of QAR43.59 billion (USD11.98 billion) (95% UI: QAR9.14 billion [USD2.5 billion], QAR134.20 billion [USD36.87 billion]), while the total indirect costs were expected to exceed QAR29.65 billion (USD8.14 billion) (95% UI: QAR2.40 billion [USD659.34 million], QAR113 billion [USD31.04 billion]).
Conclusions: This study highlights that the considerable rising burden of CVD in T2D in Qatar will impact not only the healthcare system but also the society overall. The findings may be used to prioritize strategies targeting T2D to prevent CVD burden.

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