and subsequent clinical outcomes in chemotherapy-naïve mCRC. METHODS: COU-AA-302 was a multinational, double-blind, randomized, phase 3 trial of abiraterone acetate plus prednisone compared with prednisone alone in asymptomatic or mildly symptomatic mCRC patients without previous chemotherapy. Using data from the entire COU-AA-302 patient population (N = 1088) over the first 181 days of follow-up, progression-free survival (PFS) was estimated using the Kaplan-Meier method, and the incidence of clinical endpoints and changes in FROs measuring pain, physical well-being (PWB), functional well-being (FWB), and prostate cancer-specific signs and symptoms. Cox regression analyses were performed to assess the relationship of each FRO to patient outcomes (separately and for all 4 simultaneously), and radiographic progression-free survival (rPFS) as the dependent variable, adjusting for important baseline clinical and FRO characteristics. RESULTS: In each individual model, patients with worsening FROs were at increased risk of radiographic progression compared with patients whose FROs improved or remained stable during the follow-up period. Hazard ratios (95% confidence intervals) for worsening pain intensity, PWB, FWB, and prostate cancer-specific signs and symptoms were 1.68 (1.28-2.21), 1.35 (1.04-1.74), and 1.35 (1.04-1.74), respectively, for a trend (p = 0.02). When all 4 FRO endpoints were included in a single multivariate model, a worsening in PWB was the most significant factor associated with worse rPFS. There were too few events at the time of analysis cut-off to demonstrate a significant temporal relationship between FROs and disease progression. Worsening of FROs was associated with an increased likelihood of radiographic progression in addition to their traditional utility in describing patient-relevant outcomes in clinical trials, FROs may be valuable clinical monitoring tools when following patients for disease progression.

CA2 THE ESMO MAGNITUDE OF CLINICAL BENEFIT SCALE FOR NOVEL CANCER MEDICINES — CORRESPONDENCE WITH PRIORITIZATION DECISIONS IN UPDATING THE ISRAELI NATIONAL LIST OF HEALTH SERVICES
Hammerness A1, Greenberg-Dotan S1, Feldhaimer I, Birnbaum Y1, Cherry NII
1 Clair Health Services, Tel-Aviv, Israel, 2Shaare-Zedek Medical Center, Jerusalem, Israel

OBJECTIVE: The Israeli National Health Insurance Fund (NHI) is mandated by law stipulates the Israeli National List of Health Services (NLHS) which all residents are entitled to. Every year, the government determines the additional budget to be allocated for new health technologies on the NLHS. A public national advisory committee (PNAC) evaluates and prioritizes all proposed new technologies. The PNAC takes into account mainly the efficacy of the new technology, but also economic, social and ethical aspects. However, until now, no standard tool was available for grading the extent of benefit of therapies. The European Society for Medical Oncology (ESMO) published recently its Magnitude of Clinical Benefit Scale (ESMO-MCBS) for cancer medicines. The scale is graded 5, 4, 3, 2, 1, for treatments of advanced/metastatic cancers (the ‘palliative setting’), where grades 5 and 4 represent the highest level of proven clinical benefit. Our objective was to test whether the new cancer drugs that were recommended for reimbursement by the PNAC, had higher ESMO-MCBS scores than the candidate drugs that were not approved in the 2015 NLHS update process. METHODS: ESMO-MCBS scores were obtained for the cancer drugs that were candidates for the 2015 NLHS update. Fisher’s Exact Test was used to compare scores of drugs approved and those not approved for reimbursement. RESULTS: 17 cancer drug candidates were the 2015 NLHS update deliberations. An ESMO-MCBS score of 5 or less was required for approval. The non-approved drugs 80% of the approved drugs and none of the non-approved drugs gained a score >3 (p=0.007). Median scores were 3 and 1 respectively. CONCLUSIONS: The Israeli PNAC’s decisions regarding reimbursement for novel cancer medicines can be seen to be in concordance with ESMO-MCBS scores. The structured and consistent approach of the ESMO-MCBS could further assist in framing the appropriate use of limited public resources to deliver effective and affordable cancer care.

CA3 THE BURDEN OF CANCER IN EMERGING ECONOMIES: PRODUCTIVITY LOSS AS AN ALTERNATIVE PERSPECTIVE
Pearce A1, Hanly P2, Sharp L3, Soejomarata R4
1National Cancer Registry Ireland, Cork, Ireland, 2National Cancer Institute of Ireland, Dublin, Ireland, 3Newcastle University, Newcastle, UK, 4International Agency for Research on Cancer, Lyon, France

OBJECTIVES: When people die due to cancer, their contribution to society through paid work, called production, is lost. Previous estimates of cancer-related lost production have focussed on developed countries. However, developing nations account for approximately 70% of the world’s annual cancer deaths. We estimate the value of lost productivity due to cancer mortality in the rapidly emerging economies of Brazil, Russia, India, China and South Africa (BRICS) and compare it to the UK. METHODS: Based on the Human Capital Approach, we valued the lost productivity associated with premature cancer deaths in BRICS countries and the UK in 2012. We used GLOBOCAN estimates of cancer deaths by country, sex and age group, along with OECD and national data for workforce participation, unemployment, and wage rates. Sensitivity analyses examined the impact of changing assumptions about wages, life expectancy and discounting. RESULTS: The total cost of cancer-related lost productivity in the UK in 2012 was £3 billion, and in the BRICS countries combined £41 billion. High quality assurance testing for advanced NSCLC was estimated to cost £12.9 billion and lowest in South Africa (€0.9 billion). When adjusted by number of deaths, lost productivity per (death) were highest in South Africa (€19,000), the UK (€10,000) and China (€4,000) and lowest in South Africa (€0.9 billion). When adjusted by number of deaths, lost productivity per (death) were highest in South Africa (€19,000), the UK (€10,000) and China (€4,000) and lowest in South Africa (€0.9 billion). There was large difference between countries in terms of lost productivity when examined by gender, age and cancer. For example, the cancers contributing highest productivity losses were lung cancer in Russia (22% of total), South Africa (14%), Brazil (13%) and the UK (11%), stomach cancer in China (11%), and liver cancer in China (31%). CONCLUSIONS: In many developing countries cancer now kills more people than AIDS, malaria and tuberculosis combined, however resources have not shifted correspondingly. Valuing cancer-related lost productivity provides policymakers with an additional perspective on priorities for cancer prevention and control.

CA4 INCIDENCE OF POSITIVE MUTATION OUTCOMES BY THE CANCER DRUGS FUND
Smith NP1, Beckerman R1
1CBPartners, New York, NY, USA, 2Maple Health Group, LLC, New York, NY, USA

OBJECTIVES: To build a predictive model of acceptance of drugs to the United Kingdom’s (UK) Cancer Drugs Fund (CDF) based on the scores for each factor published in the public decision summaries. METHODS: All decision summaries published from December 2014 until May 2015 were included. For each decision summary, the odds of each decision were classified as positive decisions and negative decisions. A generalised linear model (GLM) was used to estimate the odds of each factor resulting in a positive decision; univariate and multivariate analyses were performed. RESULTS: 52 candidate drugs were included. Two drugs were not formally assessed due to a lack of comparison against the standard of care in the UK. Only 22 of 64 (34.4%) of drugs received positive decisions from the CDF since December 2014, with an average total clinical score of 2.85. Median duration of HTA procedures was 3 months. CONCLUSIONS: Based on the model produced, none of the drugs have evaluated to date has significantly improved OS as assessed by the CDF. Univariate results from the GLM demonstrated that FOS and OS gains resulted in higher odds of approval with odds ratio of 1.56 (95% CI: 1.52-2.22) and 1.63 (95% CI: 1.11-2.71), respectively. A multivariate analysis also demonstrated significant effects of FOS (OR:2.12,95%CI:1.43-3.50), OS (OR:2.35,95%CI:1.19-6.97), and a trend for QoL (OR:2.58,95%CI:0.73-9.93). Monthly cost was not a significant predictor of outcome in the model. CONCLUSIONS: The majority of decisions since the 2015-2016 CDF procedures have been negative: greater gains in FOS and OS significantly improved the likelihood of a positive CDF review outcome.

MEDICAL DEVICE & DIAGNOSTIC RESEARCH STUDIES
MD1 MEDICAL DEVICES: HAVE HEALTH TECHNOLOGY ASSESSMENT AGENCIES STARTED TO FOCUS MORE ON THEM?
Liu J1, Es-Skali IJ1, Lie X1, Freeman C2, Smith NJ1, Beckerman R1
1Quintiles Advisory Services, Hoofddorp, The Netherlands, 2Quiniles Advisory Services, Reading, UK

OBJECTIVES: Since 2011, the number of health technology assessments (HTAs) on medical devices technologies increases annually. As countries worldwide are trying to curb overall healthcare expenditure, the objective of this study was to analyze if this upward trend is also found in the area of medical devices. METHODS: One hundred HTAs were selected. Their reports on medical devices since 2011 were analyzed by number and type and matched with HTAs for pharmaceutical therapies. RESULTS: Not all of the included agencies assess medical devices. Most device-related HTAs are carried out in the UK, France, Sweden, the US and Australia, matching their overall high HTA activity. However, other countries with high drug HTA activity (Germany, Spain, the Netherlands) focus less on devices. Most device-related HTAs are indicated for cardiovascular diseases, while pharmaceuticals are dominated by oncology. The number of HTAs on pharmacological therapies increases considerably more. CONCLUSION: The extent of HTA reporting on medical devices varies greatly. This is highly related with the countries’ healthcare systems. There is a need for HTA agencies to prioritize medical devices as their HTA procedure is not extensive enough.

MD2 THE COST OF MOLECULAR DIAGNOSTIC TESTING IN ONCOLOGY – A WORKFLOW ANALYSIS
Belissio B1, Pages P1, Collin C2, Pasman R1, Montagut C3
1Department of Pathology, Hospital del Mar, Barcelona, Spain, 2Laboratoire de Biochimie et Biologie Moléculaire, CHRU Tourcoing, Tours, France, 3BioSanté NV, Mechelen, Belgium, 4MedicOnco Department, Hospital del Mar, Barcelona, Spain

OBJECTIVES: The rise in molecular diagnostic testing in oncology has made this tests the subject of an increasing number of investment discussions, reimbursement negotiations and hospital cost calculations. This requires a detailed assessment of the total cost for determining tumor mutation status beyond plain kit costs. This research maps the workflow, identifies investment needs and quantifies the direct variable costs of KRAS and NRAS mutation testing from formalin fixed paraffin embedded (FFPE) sample to result. METHODS: The complete test workflow is based on the current workflow in two academic European institutions. Hands-on time and consumables used in each step were quantified in both hospitals. Unit cost was obtained from the finance departments. RESULTS: Costs related to mutation testing include investments (lab space, lab equipment, molecular diagnostic systems), testing costs (materials, labor and equipment), laboratory administration costs (disinfection, cost of errors and repeats) and direct variable costs including reagent costs, controls and labor. The total cost depends on workflow and tumor profile. To determine the workflow portfolio, we considered the most high throughput workflow, as the latter automation includes sample preparation in the test cost, as it works directly from FFPE. CONCLUSIONS: Estimations on the cost of performing tumor mutation tests should include not only reagent costs, which are usually well considered, but also investments, lab running costs, labor and all other direct and indirect costs. Even in the most advanced labs, efforts are needed to fully