

NICE Limits Reimbursement for Oncology Products beyond EMA Product Labeling

In recent years, technology appraisals and reimbursement recommendations from established health technology assessment (HTA) organizations around the globe are taking on an increasingly prominent role in cost-containment and seem to have become more restrictive in nature. As HTAs have become a prominent element of health care decision-making in many countries, attention is turning to whether they assess outcomes and measures that are most meaningful to patients and their physicians. Perhaps more importantly, a question has arisen as to whether current models are sufficiently flexible to recognize the way value emerges over time as the science advances and understanding of the underlying disease grows. For example, many models make decisions based on an average response, which does not take into account patient heterogeneity, the current standard of care, or a change in the evidence base over time. There is concern that these types of determinations may limit patient access to important medicines and more generally, might not provide sufficient incentives for continued biomedical innovation.

Given the current climate and a growing interest in HTA policy, Context Matters initiated a research initiative to examine trends in global HTA with a specific focus on established global HTA models that are often referenced in U.S. conversations regarding access and reimbursement. The United Kingdom's (UK) National Institute for Health and Care Excellence (NICE) was a particular focus in this endeavor, given their high level of activity and amplified presence in global HTA.

Methods

In this analysis, Context Matters explored two dimensions on which NICE restricts access to drugs: by issuing negative decisions and by adding restrictions to the market authorization. The sample included 161 NICE technology appraisals of pharmaceuticals, spanning the period January 2007 to December 2013.¹ NICE's recommendation for each drug was compared to the corresponding European Medicines Agency (EMA) market authorization to determine whether NICE's recommendation was more restrictive than the label.²

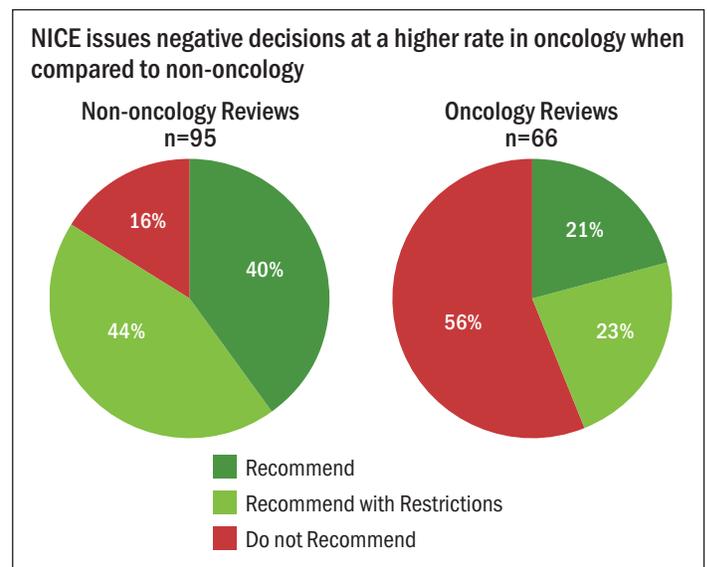
¹ The sample covered 80 drugs spanning 37 disease conditions including 12 oncology conditions.

² For drugs lacking an EMA market authorization, the Medicines and Healthcare Products Regulatory Agency (MHRA) market authorization was substituted.

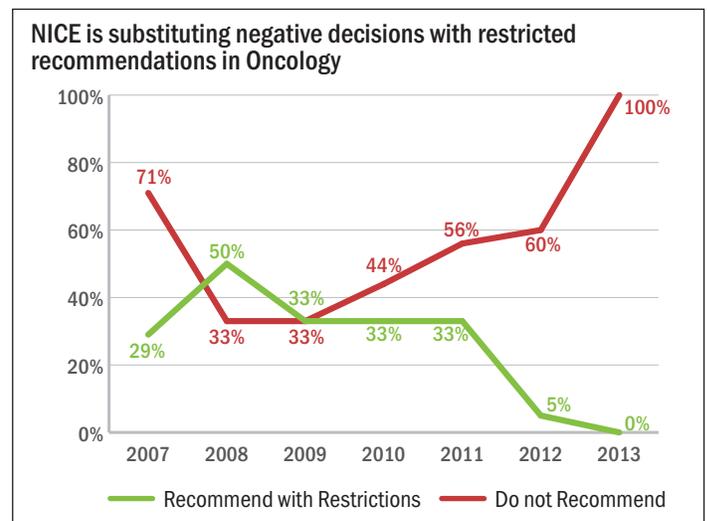
Results

Oncology drugs are less likely to receive positive decisions

NICE's overall rate of issuing positive decisions was 68%. The rate of positive decisions for non-oncology drugs was 84%, significantly higher than the 44% rate for oncology drugs ($p < .001$). Because NICE issued positive recommendations less frequently for oncology reviews, it was less likely to issue unrestricted recommendations for oncology drugs than for non-oncology drugs (21% vs. 40%).

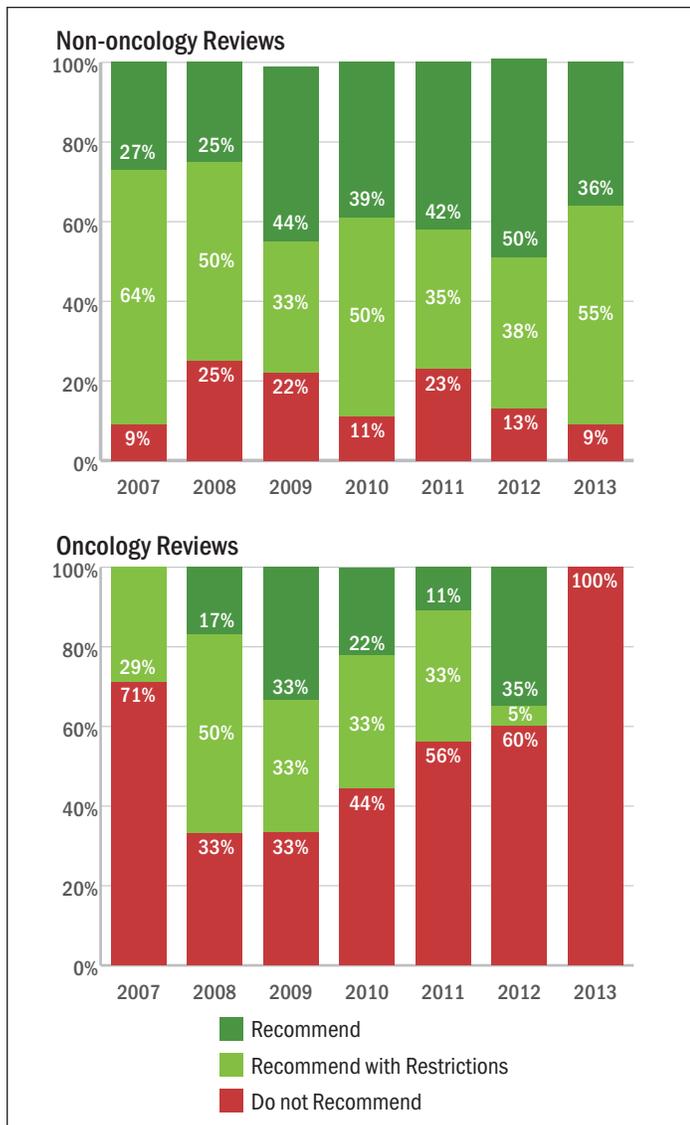


Over time, NICE became less likely to add restrictions to oncology drugs ($p = .07$), but not to non-oncology drugs ($p = .65$). Although NICE is becoming less restrictive over time for oncology when compared to non-oncology reviews, they are less likely to issue recommendations for oncology reviews in the first place.



NICE is substituting negative decisions for restricted recommendations in oncology reviews

Over time for oncology reviews, the rates of negative decisions have been increasing while the rates of recommend with restrictions have decreased. The trend of decreasing negative decisions is statistically significant at $p=.07$; the increase in rates of negative decisions after 2008 does not pass the usual test of statistical significance ($p=.22$). While NICE appears to be substituting negative decisions for restricted recommendations in oncology reviews, the same trend is not present in the non-oncology reviews.



NICE decisions for non-oncology reviews exhibit no clear trend over time

While NICE is issuing fewer positive decisions over time for oncology reviews, there is not a clear trend for non-oncology reviews ($p=.57$); among non-oncology reviews, the rate of positive NICE decisions ranged from 75% to 91%.

³ <http://news.ohc.org/2014/01/23/ohc-hesg-value-based-assessment-uk-developing-eq-5d-5l/>

Patient and disease characteristic restrictions are common among non-oncology drugs

The types of restrictions issued by NICE fall into three categories: characteristics of the patient/disease, treatment history and how the therapy is delivered. Stratifying the restrictions by oncology and non-oncology shows that oncology restrictions are represented equally across the three restriction categories, while non-oncology restrictions appear significantly more often in the Characteristics of Patient or Disease category ($p=.01$). It appears that NICE more frequently restricts non-oncology drugs based on patient or disease characteristics than they do for oncology drugs.

Conclusions

Overall, NICE's HTA decisions were more restrictive than the market authorization in a little more than half of its decisions, limiting the population eligible for the drug in 52% of its positive recommendations.

When looking at all diseases, the data suggest that NICE is becoming less restrictive over time compared to the market authorization (NICE issued recommend or recommend with restrictions decisions for 68% of the reviews in our sample), however, the proportion of positive decisions for oncology reviews was considerably lower than for non-oncology reviews (44% and 84%, respectively). NICE is less likely to issue a positive recommendation for oncology drugs, and over time NICE appears to be substituting negative decisions for restricted recommendations in oncology. This finding is supported by independent research at the Health Economists' Study Group³ that found the restrictive recommendations fell and negative recommendations rose for oncology drugs following the establishment of the Cancer Drug Fund in England.

NICE reviews had a median of one restriction for each drug that received a positive decision. This was true for both oncology and non-oncology disease conditions. Contraindication or Intolerance, Prior Therapy, and Drug Failure were the most common restrictions added by NICE. NICE appears to issue more restrictions based on patient and disease characteristics in non-oncology drugs than in oncology drugs.

These emerging trends in NICE's HTA decisions present challenges to innovative companies who must navigate increasingly complex regulatory and reimbursement hurdles and to patients seeking access to novel therapies. In order to receive market authorization, researchers must conduct extensive clinical studies to demonstrate safety and efficacy. Perhaps the increasing restrictiveness of HTA decisions for oncology drugs signals a growing divergence between the types of studies and analysis used to obtain regulatory approval and those required for reimbursement approval. Whatever their source, restrictions have important implications for patient access. In oncology an increasing tendency for NICE to bypass positive decisions with restrictions in favor of negative decisions shifts the burden to pay for access to these drugs to the Cancer Drug Fund.